



8. FREIGHT RAIL

8.1 Introduction

Freight rail transportation plays an important role in the overall transportation system in the DRA region. There are approximately 7,228 miles of Class I railroad track, 190 miles of Class II (regional railroads) track and 2,256 Class III (local railroads) track for a total of 9,674 freight rail track in the DRA region. There are five rail bridge crossings over the Mississippi and Ohio Rivers and the region is served by six Class I railroads:

- CSX Corporation (CSX);
- Norfolk Southern (NS);
- Burlington Northern Sante Fe (BNSF);
- Union Pacific (UP);
- Canadian Nations (CN); and
- Kansas City Southern (KCS).

All six Class I railroads have rail yards in the DRA region, which allows for efficient intermodal operations. The Mississippi River is the dividing line between western and eastern railroad companies and Memphis serves as a major freight rail transfer center for Class I railroads. Thus, Memphis is a strategic location for freight rail in the DRA region and it is one of only three cities in the U.S. served by five Class 1 Railroads, which are BNSF, CN, CSX, NS, and UP.⁷⁶

A short-line railroad company operates over a relatively short distance and are operated independent of Class I railroads. Short-lines typically link two industries requiring rail freight together, interchange revenue traffic with other railroads and operate a passenger train service for tourism. Due to the small size and low revenue, short-lines are classified by the American Association of Railroads (AAR) local railroads. There are approximately 45 short-line companies that serve the DRA region and needs for these local independent railroad companies are included in the CD that accompanies this report.

The rail freight system operating within the DRA region serves the following functions:

- The Class I railroads which provide mainline rail service within the DRA states connect the region with the rest of the United States.
- The mainline rail systems that operate parallel to the Mississippi River serve as a growing rail intermodal corridor as port capacity constraints on the west and east coasts make Gulf of Mexico ports more attractive. Class I railroads also move bulk commodities such as

⁷⁶ American Association of Railroads



coal and grain and other heavy goods such as autos, which provide relief to the highway system and lower transportation costs to the region's industries.

- A number of north-south rail routes in the region also serve as major *NAFTA* routes for trade with Canada and Mexico.
- Due to the geographic constraints imposed by the Mississippi River, existing river crossings in the region provided critical linkages to the national rail system. The Mississippi River is also the interchange point where western railroads (BNSF, UP) interchange traffic with eastern railroads (NS, CSX). Therefore major cities at or in the proximity of these crossing points, namely Memphis, Jackson (MS), and New Orleans serve as major rail and intermodal hubs.
- Short-line or Class III railroads provide a number of functions to the DRA region and act as intermodal connections at port facilities where goods are transferred from water to rail and eventually linked to the mainline rail system. Class III railroads also serve local communities and industries in areas where the larger railroads have found direct rail service not to be cost-effective.

Freight railroads in the DRA region are generally privately-owned. However, state DOTs in the DRA region support and fund grade separation projects and other initiatives to reduce traffic congestion, improve freight mobility and improve safety. Freight railroads and local government authorities also coordinate intermodal improvement efforts. Recently, Canadian National and CSX Intermodal entered into a public/private partnership with the City of Memphis, Shelby County, and the Memphis & Shelby County Port Commission and developed the Memphis Super Terminal. The Memphis Super Terminal is a 155-acre intermodal facility built in the Frank C. Pidgeon Industrial Park in southwest Memphis, located just south of President's Island. Railroad investments totaled \$25 million to complete this project. The terminal has an annual capacity of 200,000 lifts and is equipped with five tracks, with a total pad length of 20,000 feet, for rail/truck trailer and container transfers and provides parking spots for 1,800 trailers or container chassis.

8.2 Rail Mainline System Growth Rate and Needs

The DRA rail system is impacted by the condition of the system within the region, as well as outside its boundaries. Because the region's rail traffic is affected by its proximity to major rail hubs and interchange points such as Chicago and St. Louis, service levels within the region can be impacted by physical or operational problems at these locations or elsewhere on the rail network. This analysis, however, will focus on areas or segments of the system that affect the fluidity and reliability that the rail network requires to remain competitive with other modes of transportation.

As there is no national rail-conditions database comparable to FHWA's Highway Performance Monitoring System database, there is no uniform and comprehensive data for assessment of the physical condition of the national rail system. To determine rail mainline system capacity needs



for the overall DRA region, the *National Rail Freight Infrastructure Capacity and Investment Study*, published by the Association of American Railroads (AAR) in September, 2007 was utilized. This study was completed at the request of the *National Surface Transportation Policy and Revenue Study Commission* to assess the capacity of the nation's rail system to accommodate the estimated increase in freight-rail traffic.

The Class I railroads designated "Primary Rail Corridors" and these corridors were evaluated on the basis of both current rail volumes compared to current capacity and future (2035) volumes compared to current capacity. From this, current and future levels of service from Level A to Level F, similar to that used for the highway system, were assigned to each of the corridors.

As shown in **Figure 14**, a number of Primary Corridors lie within the DRA region. Union Pacific (UP) lines comprise a major north-south corridor west of the Mississippi River from southern Illinois to New Orleans. Likewise, the Canadian National (CN) corridor, which was formerly the Illinois Central RR, operates east of the Mississippi River along the entire length of the DRA region. A portion of a north-south CSX corridor in Western Kentucky is also within the DRA region. All six Class I railroads in the DRA region maintain east-west corridor operations. The UP and Burlington Northern Santa Fe (BNSF) railroads connect with CSX and Norfolk Southern (NS) railroads at Memphis. The Kansas City Southern RR (KSC) maintains an east-west corridor across Louisiana and Mississippi. In the New Orleans area, UP, KCS and BNSF lines approach the City from the west and join CSX and NS, which extend eastward. Finally, in Alabama both CSX and NS operate rail-lines within the region.

A number of the primary corridor mainlines, or segments of the lines, were cited in the *National Rail Freight Infrastructure Capacity and Investment Study* as having high projected growth rates. Growth rates, both in terms of the number of trains per day and the percentage increase in trains per day, were projected for the period between 2005 and 2035. The growth rates for segments within the DRA region are shown on **Figures 15 and 16**.

Projected growth rates in terms of trains per day are relatively moderate (0 to 30 trains per day) for most north-south rail corridors in the DRA region. In the northern portion of the DRA region, rail lines linking and proximate to the Chicago and St. Louis hubs are projected to increase by 30 to 80 trains per day. Heavier increases in trains per day are projected along east-west routes and at Mississippi River crossings. East of Memphis traffic is projected to increase 30 to 80 trains per day and the KCS line across Mississippi is projected to increase between 80-200 additional trains per day.

On the basis of percentage of increase in projected trains per day, the largest increases – over 100 percent – are projected over lines connecting to the major Chicago and St. Louis markets and also on lines crossing the Mississippi River.

Figure 14: Primary Freight Corridors

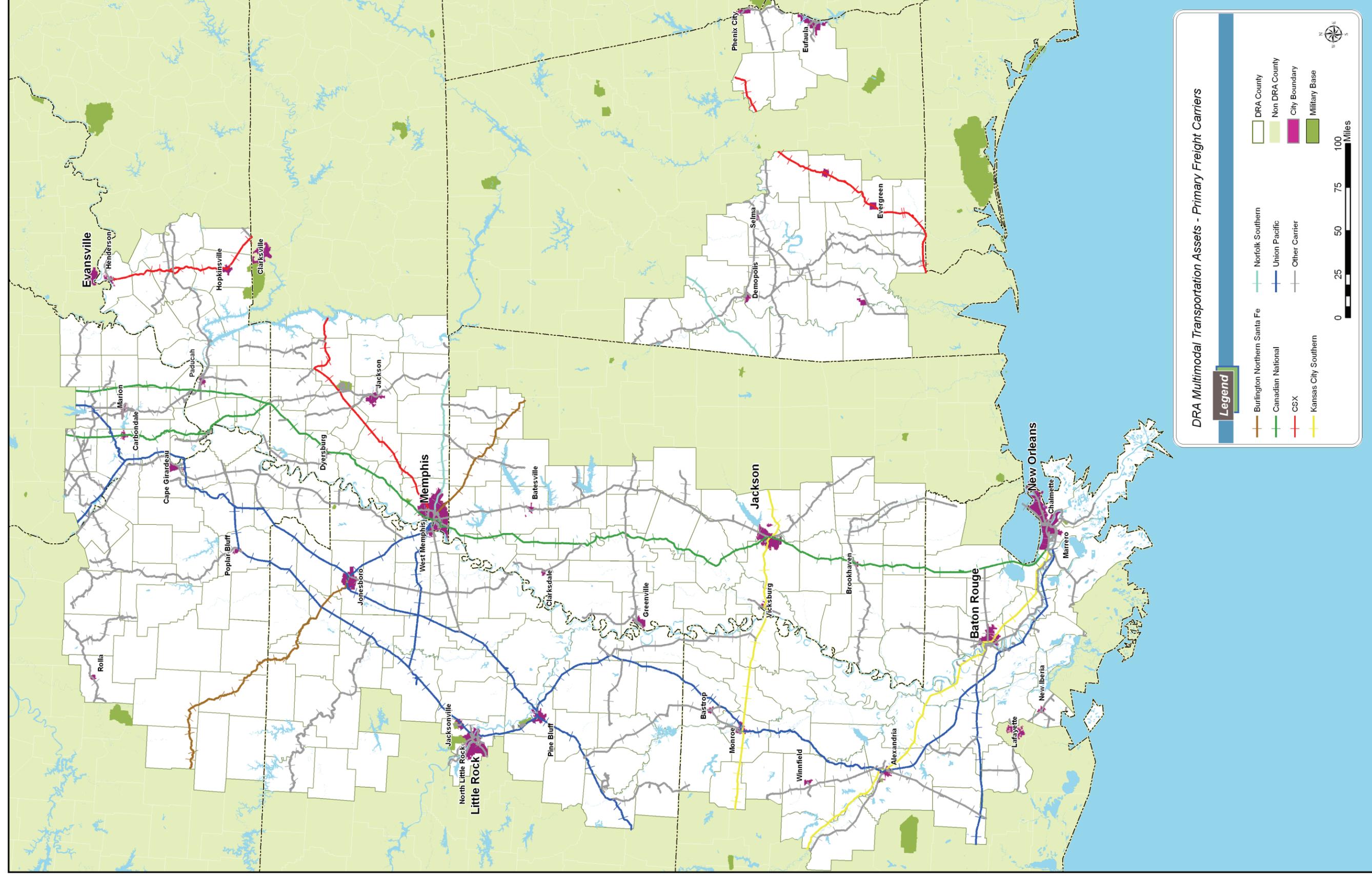
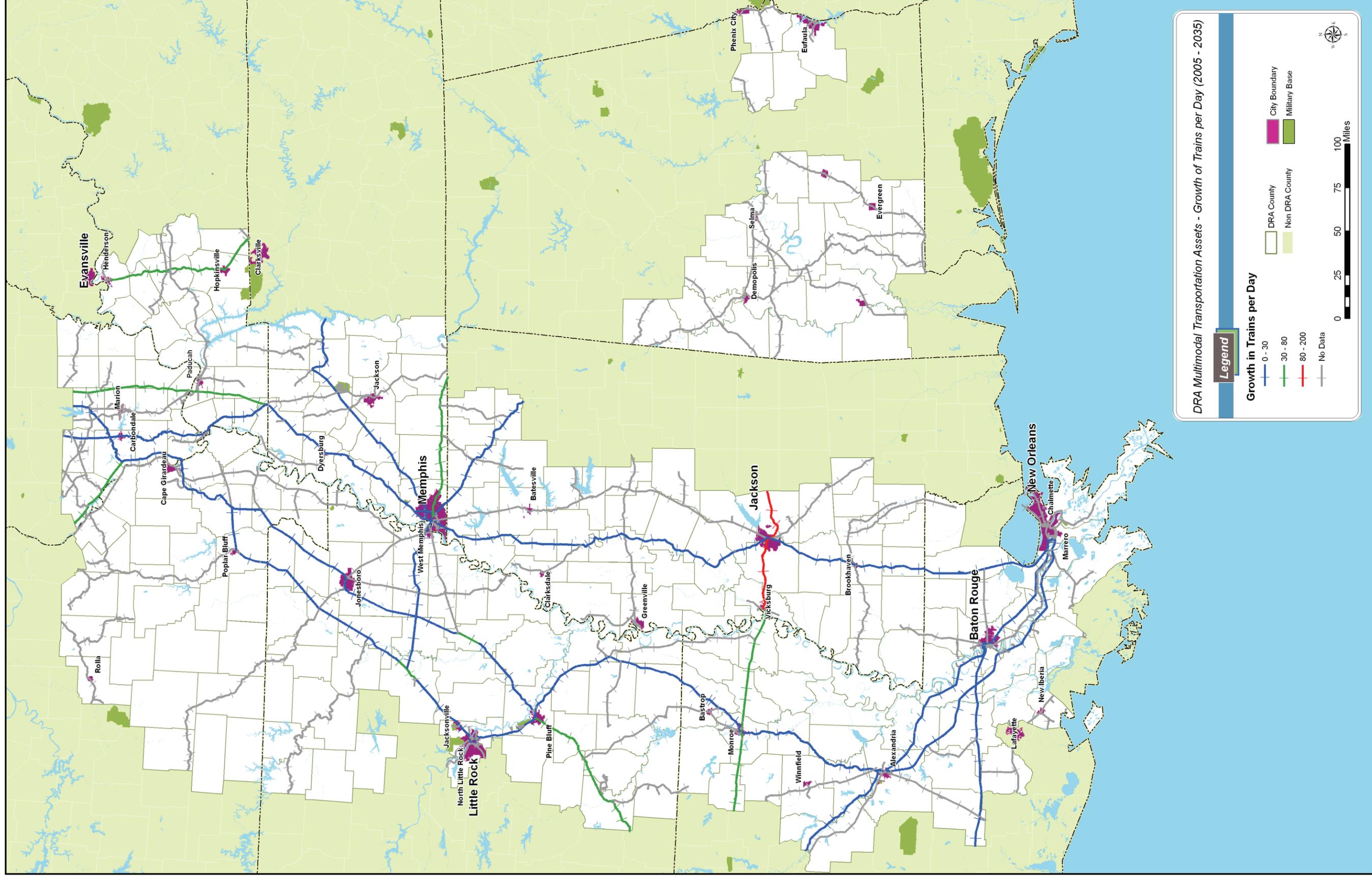


Figure 15: Growth of Trains per Day (2005-2035)



DRA Multimodal Transportation Assets - Growth of Trains per Day (2005 - 2035)

Figure 16: Percent Growth of Trains per Day (2005-2035)



DR A Multimodal Transportation Assets - Percent Growth of Trains per Day (2005 - 2035)



8.2.1 Existing and Projected Rail Capacity Constraints on DRA Mainlines

As noted previously, the *National Rail Freight Infrastructure Capacity and Investment Study* assessed current primary corridor capacity to determine congestion levels. This was done by calculating a volume-to-capacity ratio expressed as a level of service (LOS) grade.

LOS grades were generally described as follows:

- LOS Grades A, B, C – Rail volumes are generally below current capacity. Train flows are low to moderate with capacity to accommodate maintenance and recover from incidents;
- LOS Grade D – Rail volumes are near capacity. Train flows are heavy with moderate capacity to accommodate maintenance and recover from incidents;
- LOS Grade E – Rail volumes are at capacity. Train flows are very heavy with very limited capacity to accommodate maintenance and recover from incidents; and
- LOS Grade F – Rail volumes are above capacity. Train flows are unstable and service breakdown conditions exist.

DRA rail line segments with existing Levels of Service D, E, and F are shown on **Figure 17**. Rail line segments projected to have Levels of Service D, E and F in 2035 are shown on **Figure 18**. These specific line segments are described when rail needs for individual states are discussed below.

The majority of the priority rail corridors (Class I railroads) within the DRA region currently operate with acceptable levels of service to accommodate existing traffic levels, shown in **Figure 17**. However, there are corridor segments in Missouri, Arkansas, Kentucky, and Louisiana that are currently operating at or near capacity. These segments do not negatively impact rail efficiency on a system basis as yet, but heavy flows leave little leeway to accommodate maintenance or incidents. However, the corridor segment east of Memphis currently operates at a Level of Service F and this congestion restricts operations and efficiency within Memphis and across the Mississippi River.

Based on the *National Rail Freight Infrastructure Capacity and Investment Study*, future rail corridor LOS in the DRA region are projected to worsen. All major east-west primary corridors are projected to deteriorate to LOS E or F and various north-south primary corridors segments will likely experience increased congestion in the northern portion of the DRA region and at interchange locations where major railroads exchange traffic.

Figure 17: Current Level of Service Grade

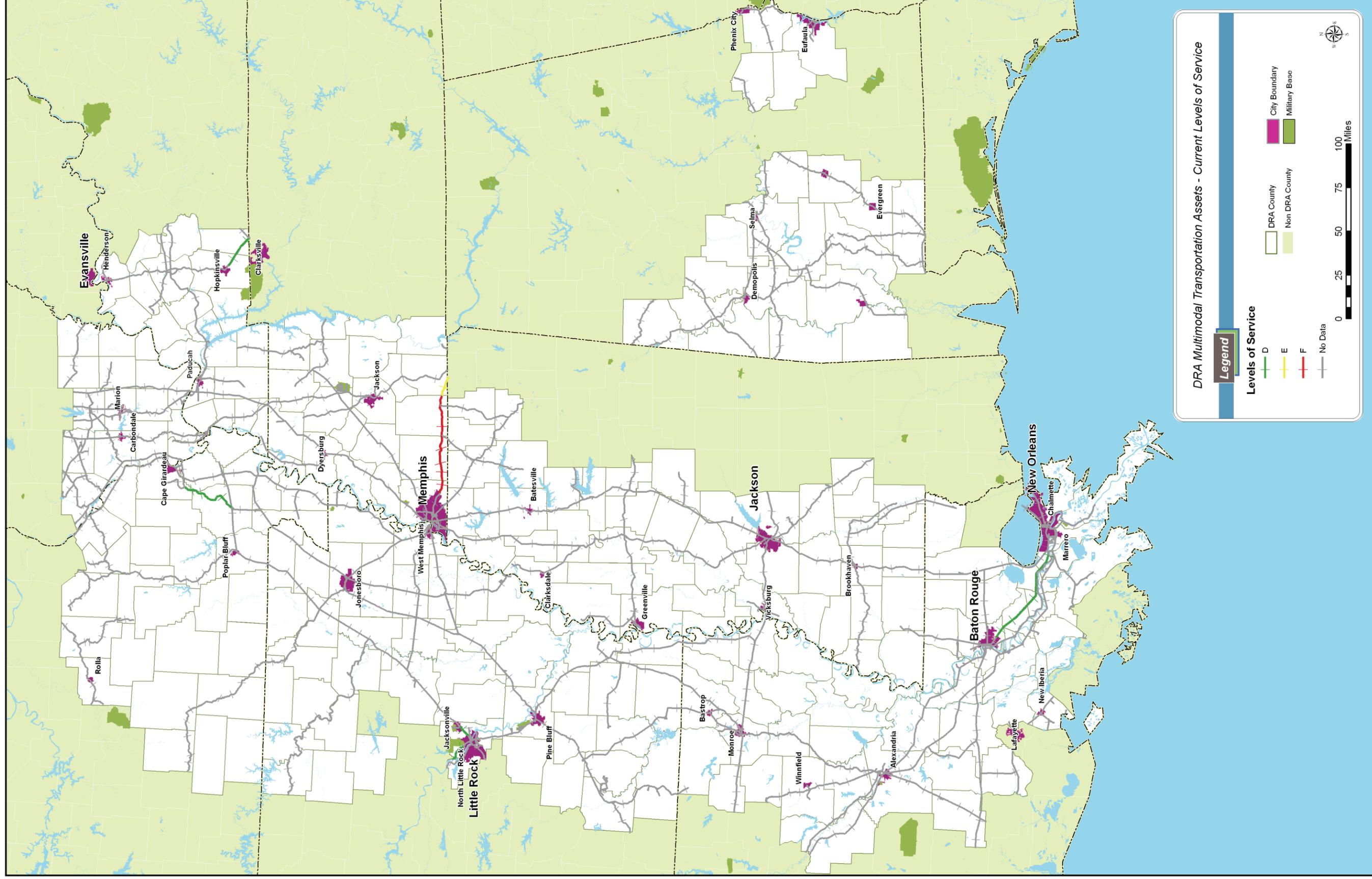
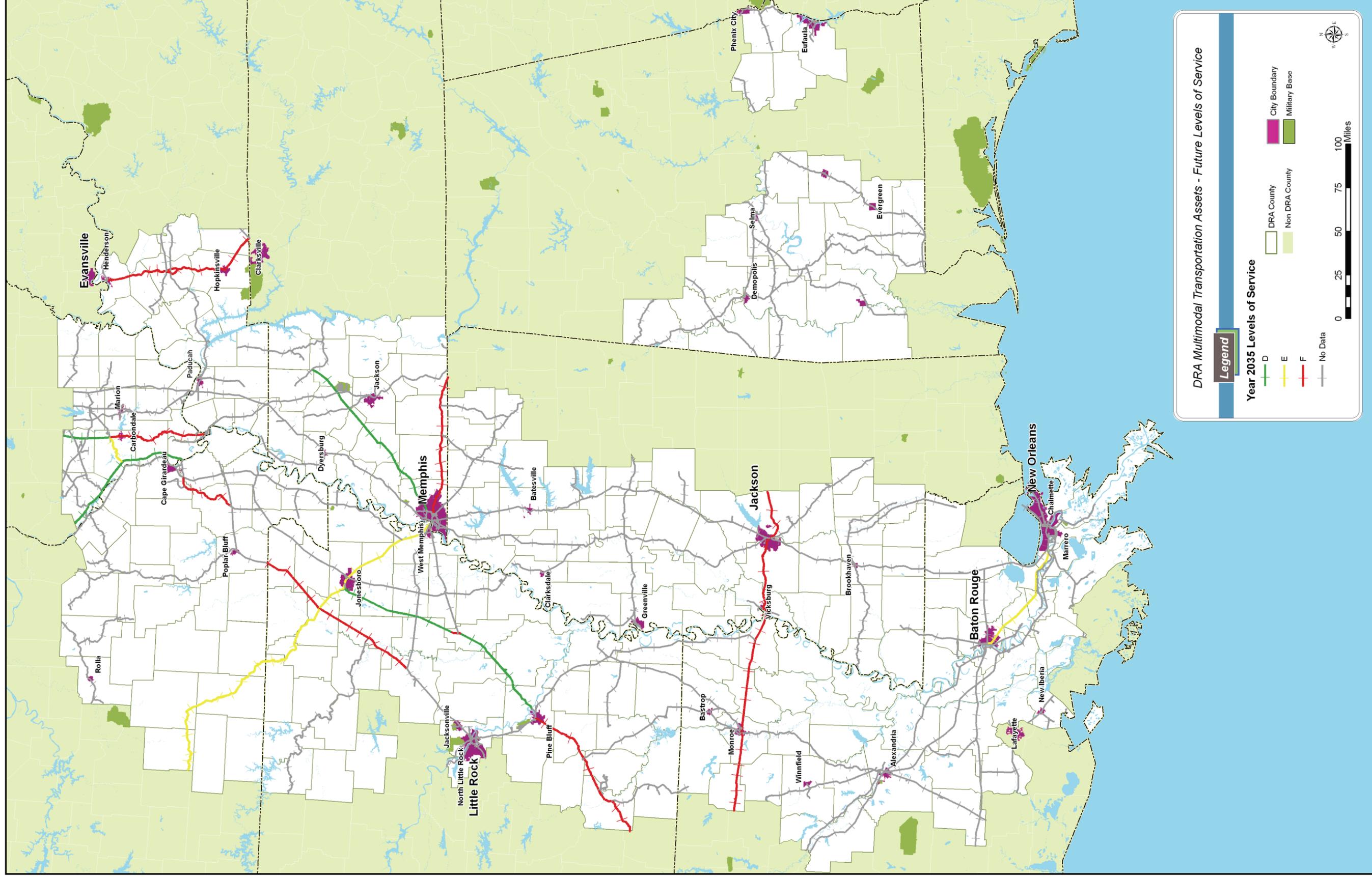


Figure 18: Future Level of Service Grade





Class I railroads intend to respond to these future capacity constraints by adding track, building or lengthening mainline passing sidings (generally up to two mile-long segments of parallel trackage), improving signal systems, and upgrading track to support increased traffic and heavier loads. These major railroads are expected to be able to meet approximately 80 percent of the infrastructure capacity needs over the next 20 years. However, Class I railroads will need federal financial and legislative assistance, as well as other public-private partnerships, to meet the remaining rail system needs in the DRA region.

8.3 State Rail Needs

The rail systems within each of the states in the DRA region comprise both a mainline network that serves the entire region, as well as a local delivery and distribution system through a system of branch lines, rail spurs, interchange sidings, short-line services and various rail yard and intermodal operations.

Although through mainline rail operations are essential to the competitiveness of the rail mode, it is the originating and terminating rail traffic for each state that contributes to the economic development base of states and regions. Each state within the DRA region differs somewhat as to its level of rail dependence, predominant commodities carried by rail and rail physical needs based on its rail network characteristics and the potential for its rail industry to attract new rail traffic or divert freight to rail from other modes. Over the next 25 years, the freight rail needs (Class I, II and III) in the DRA region total \$2.2 billion and include improvements to tracks, signal systems, and intermodal facilities.⁷⁷

The following section provides a short summary of each state's rail network within the DRA region, which is shown on **Tables 7 to 14**. Based on information provided by railroad surveys and in state rail plans, rail system needs and estimated costs are provided for the following need categories:

Safety – Needs related to conditions with the potential to lead to physical harm to rail employees or residential areas proximate to rail lines due to excepted track (below FRA safety Class standards) or rail-highway at-grade crossing deficiencies.

Congestion Relief – Needs for Class I railroad segments within each state that are currently or projected to be Levels of Service D, E or F and congestion at major rail yard facilities.

Improved Freight Mobility – Needs related to track and bridge improvements required to improve short-line capacity or efficiency, small yards or sidings required to interchange rail cars

⁷⁷ Needs calculated by reviewing the *National Rail Freight Infrastructure Capacity and Investment Study*, state rail plans, and consulting each short-line railroad company in the DRA region.



between railroads, and track/bridge improvements required to accommodate modern, heavier (286,000 lb.) car weights.

Increased Intermodal Connectivity – Needs where rail lines serve ports and where expanded intermodal transfer facilities are required.

Environmental Protection – Needs related to rail operations that pose a danger to the environment or facilities required to remediate problems.

Economic Development – Need for new facilities or the re-establishment of new rail lines for existing or prospective economic development opportunities.

8.3.1 Alabama

RAIL FREIGHT CHARACTERISTICS:

DRA Region Class I Railroad track miles:	402
DRA Region Class II Railroad track miles:	0
DRA Region Class III Railroad track miles:	853
DRA region total Railroad track miles:	532

Table 7: Alabama Rail Freight Characteristics

Safety Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Georgia Southwestern RR	Rehabilitate 36 miles of excepted track	\$14.0
Georgia Southwestern RR	Rehabilitate grade crossing surfaces	\$0.3
Alabama & Gulf Coast RR	Rehabilitate 1 mile of excepted track	\$0.8
Alabama RR	Rehab. 60 miles of excepted track/bridges	\$26.4
Alabama RR	Rehabilitate crossing surface/signals	\$1.0
Meridian & Bigbee RR	Install 8 defect detectors	\$0.5
Meridian & Bigbee RR	Rehabilitate 66 grade crossings	\$1.0
Total Safety Needs		\$44.0

Freight Mobility Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Georgia Southwestern RR	Rail and bridge upgrades for 286k	\$6.0
Georgia Southwestern RR	Yard expansion	\$1.6
Alabama & Gulf Coast RR	Siding expansion	\$3.0
Alabama & Gulf Coast RR	Bridge upgrades for 286k	\$10.0
Alabama & Gulf Coast RR	Magnolia Yard expansion	\$2.5
Alabama RR	Yard expansion	\$1.2
Alabama RR	Rail and bridge upgrades for 286k	\$67.0
Alabama RR	Siding expansion	\$0.5
Meridian & Bigbee RR	Rail and bridge upgrades for 286k	\$104.3
Meridian & Bigbee RR	Siding expansion	\$4.3
Total Freight Mobility Needs		\$200.4

Intermodal Connectivity Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Alabama RR	Establish Wallace intermodal yard	\$2.2
Total Intermodal Connectivity Needs		\$2.2

Source: Alabama DOT and Alabama Short-Line Railroads



8.3.2 Arkansas

RAIL FREIGHT CHARACTERISTICS:

DRA Region Class I Railroad track miles:	1,407
DRA Region Class II Railroad track miles:	0
DRA Region Class III Railroad track miles:	566
DRA region total Railroad track miles:	1,973

Table 8: Arkansas Rail Freight Characteristics

Safety Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Little Rock Port Authority RR	Rehabilitate grade crossing signals	\$1.0
Ouachita RR	Rehabilitate 22 miles of excepted track	\$2.2
Total Safety Needs		\$3.2

Congestion Relief Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Union Pacific	Future LOS F - N. Little Rock-Levy	\$1.0
Union Pacific	Future LOS F - Coming – Bald Knob	24.0
Union Pacific	Future LOS F – Pine Bluff- Stephens	24.0
Union Pacific	Future LOS F – at Brinkley	1.0
Burlington Northern	Future LOS E – Thayer, Missouri – Memphis	37.0
Union Pacific	Future LOS D – Jonesboro – Pine Bluff	37.0
Total Congestion Relief Needs		\$124.0

Freight Mobility Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Missouri & No. Arkansas RR	Rehabilitate track and bridges	\$1.35
Ouachita RR	Rehabilitate bridges for 286k	\$2.70
Total Freight Rail Needs		\$4.05

Intermodal Connectivity Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Little Rock Port Authority RR	Rehabilitate track	\$0.25
Little Rock Port Authority RR	Yard expansion	\$1.50
Ouachita RR	Expand transload yard at El Dorado	\$0.40
Total Intermodal Connectivity Needs		\$2.15

Economic Development Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Yellow Bend Spur Line	Establish new line/yard to port	\$20.0
Statewide	Establish fund to preserve right-of-way	\$10.0
Total Economic Development Needs		\$30.0

Source: AHTD and Arkansas Short-Line Railroads



Illinois

RAIL FREIGHT CHARACTERISTICS:

DRA Region Class I Railroad track miles:	725
DRA Region Class II Railroad track miles:	0
DRA Region Class III Railroad track miles:	50
DRA region total Railroad track miles:	775

Table 9: Illinois Rail Freight Characteristics

Safety Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Shawnee Terminal Railroad	Rehabilitate 2.5 miles of excepted track	\$0.525
Shawnee Terminal Railroad	Upgrade crossing surfaces and signals	\$1.000
Total Safety Needs		\$1.525

Congestion Relief Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Canadian National (ICG)	Future LOS F Carbondale-Cairo	\$13.0
Union Pacific	Future LOS E Gorham- Carbondale	\$10.0
Union Pacific	Future LOS D Flinton-Thebes	\$15.0
Canadian National (ICG)	Future LOS D Carbondale-Ashley	\$13.0
Total Congestion Relief Needs		\$51.0

Freight Mobility Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Shawnee Terminal Railroad	Rehabilitate yard	\$0.24
Shawnee Terminal Railroad	Rehabilitate track/bridges for 286k	\$0.6
Total Freight Mobility Needs		\$ 0.84

Intermodal Connectivity Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Crab Orchard & Egyptian RR	Construct intermodal facility at Marion	\$7.5
Total Intermodal Connectivity Needs		\$7.5

Source: Illinois DOT and Illinois Short-Line Railroads



8.3.4 Kentucky

RAIL FREIGHT CHARACTERISTICS:

DRA Region Class I Railroad track miles:	286
DRA Region Class II Railroad track miles:	190
DRA Region Class III Railroad track miles:	56
DRA region total Railroad track miles:	532

Table 10: Kentucky Rail Freight Characteristics

Safety Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Tennken RR	Rehabilitate 3 miles of excepted track	\$1.65
	Total Safety Needs	\$1.65
Congestion Relief Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
CSX	Future LOS F Henderson-Guthrie	\$24.0
	Total Congestion Relief Needs	\$24.0
Freight Mobility Needs		
Railroad	Infrastructure Needs	Cost Estimate (\$millions)
Tennken RR	Rehabilitate yard	\$1.00
Tennken RR	Rehabilitate track/bridges for 286k	\$3.07
KWT Railway	Rehabilitate track/bridges for 286k	\$2.60
	Total Freight Mobility Need	\$ 6.67

Source: KYTC and Kentucky Short-Line Railroads



8.3.5 Louisiana

RAIL FREIGHT CHARACTERISTICS:

DRA Region Class I Railroad track miles:	1,847
DRA Region Class II Railroad track miles:	0
DRA Region Class III Railroad track miles:	337
DRA region total Railroad track miles:	2,184

Table 11: Louisiana Rail Freight Characteristics

Safety Needs

Railroad	Infrastructure Needs	Cost Estimate (\$millions)
New Orleans & Gulf Coast RR	Crossing elimination/relocation-Gretna	\$500.0
Ouachita RR	Rehabilitate 7 miles of excepted track	\$0.7
Acadiana RR	Rehabilitate 3 grade crossings	\$1.0
Total Safety Needs		\$ 501.7

Congestion Relief Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Kansas City Southern	Future LOS E Baton Rouge-New Orleans	\$23.0
Total Congestion Relief Needs		\$23.0

Freight Mobility Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Louisiana & Delta RR	Rehabilitate track/bridges for 286k	\$2.40
Arkansas, Louisiana & Miss. RR ⁷⁸	Rehabilitate track for 286k	\$1.00
Delta Southern RR ⁷⁸	Rehabilitate track for 286k	\$15.00
Gloster & Southern RR ⁷⁸	Rehabilitate bridges	\$0.20
New Orleans & Gulf Coast RR ⁷⁸	Rehabilitate track/bridges	\$1.55
New Orleans Public Belt RR ⁷⁸	Rehabilitate track/bridges/yard	\$33.70
Total Freight Mobility Needs		\$53.85

Intermodal Connectivity Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Louisiana & Delta RR	Yard/siding expansion at New Iberia Pt	\$2.2
Acadiana RR	New intermodal facility at Opelousas	\$2.5
Total Intermodal Connectivity Needs		\$4.7

Economic Development Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Ouachita RR	New rail line Lillie-Ruston	\$30.0
Statewide ⁷⁸	Millennium Port feasibility study	\$1.0
Total Economic Development Needs		\$31.0

Source: LA DOTD and Louisiana Short-Line Railroads

⁷⁸ Louisiana Department of Transportation and Development. *Louisiana State Rail Plan*.



8.3.6 Mississippi

RAIL FREIGHT CHARACTERISTICS:

DRA Region Class I Railroad track miles:	1,046
DRA Region Class II Railroad track miles:	0
DRA Region Class III Railroad track miles:	386
DRA region total Railroad track miles:	1,432

Table 12: Mississippi Rail Freight Characteristics

Safety Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Mississippi Delta RR	Rehabilitate 60 miles of excepted track	\$30.00
Mississippi & Tennessee RR	Rehabilitate crossing signals – Airport Rd.	\$0.75
Kosciusko & Southwestern RR	Rehabilitate crossing signals – Hwy 35	\$1.00
Mississippi Central RR	Rehabilitate 50 miles of excepted track	\$18.40
Mississippi Central RR	Rehabilitate crossing surfaces/signals	\$0.90
Total Safety Needs		\$51.05
Congestion Relief Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Kansas City Southern	Future LOS F Vicksburg – Pelahatchee	\$15.0
Total Congestion Relief Needs		\$15.0
Freight Mobility Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Mississippi Delta RR	Expand Swan Lake interchange track	\$1.50
Mississippi Delta RR	Rehabilitate track/bridges for 286k	\$30.80
Mississippi Delta RR	Expand Tallahatchee Yard	\$1.60
Mississippi & Tennessee RR	Rehabilitate track/bridges for 286k	\$10.00
Mississippi & Tennessee RR	Yard expansion	\$3.50
Kosciusko & Southwestern RR	Rehabilitate bridges	\$0.50
Mississippi Central RR	Rehabilitate yard	\$0.75
Mississippi Central RR	Rehabilitate track/bridges for 286k	\$5.70
Total Freight Mobility Needs		\$54.35
Intermodal Connectivity Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Mississippi Delta RR	Reinstall tracks Coahoma-Friars Point	\$5.0
Total Intermodal Connectivity Needs		\$5.0

Source: Mississippi DOT and Mississippi Short-Line Railroads

Transportation (potential) needs in northwest Mississippi to accommodate 30,000 to 50,000 tons per day capacity may include the following freight rail improvements to support future development:

- Port to Facility - 10 miles of single rail track;
- Miles to Facility – 15 miles, double rail track (30 single-rail miles);
- Facility to Coahoma and switching connection to short line rail – 35 miles, single rail track; and
- Switch Connection to Canadian National Mainline (two connections; one at Sledge and the second at Swan Lake).



8.3.7 Missouri

RAIL FREIGHT CHARACTERISTICS:

DRA Region Class I Railroad track miles:	969
DRA Region Class II Railroad track miles:	0
DRA Region Class III Railroad track miles:	33
DRA region total Railroad track miles:	1,002

Table 13: Missouri Rail Freight Characteristics

Safety Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
SEMO	Rehabilitate 7 miles excepted track	\$1.80
Malden Rail Spur	Upgrade crossings with gates/signals	\$0.50
Burlington Northern	Crossing improvements – Hayti	\$0.59
Burlington Northern	Grade separation – West Plains	\$4.50
Burlington Northern	Crossing improvements – Sikeston	\$1.00
Burlington Northern	Crossing improvements – Pemiscot County	\$0.10
Union Pacific	Crossing improvements – Poplar Bluff	\$0.75
	Total Safety Needs	\$12.24
Congestion Relief Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Union Pacific	Future LOS F Delta – Dexter	\$13.0
Burlington Northern	Future LOS E Thayer – Mansfield	\$24.0
	Total Congestion Relief Needs	\$37.0
Freight Mobility Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
SEMO	Rehabilitate track	\$5.0
SEMO	Expand yard	\$1.5
Malden Lead Track	Rehabilitate track; construct loop track	\$0.5
	Total Freight Mobility Needs	\$7.0
Intermodal Connectivity Needs		
Railroad	Infrastructure Need	Cost Estimate (\$ millions)
SEMO	Expand Harbor Lead yard	\$18.3
	Total Intermodal Needs	\$18.3

Source: Missouri DOT and Missouri Short-Line Railroads



8.3.9 Tennessee

RAIL FREIGHT CHARACTERISTICS:

DRA Region Class I Railroad track miles:	546
DRA Region Class II Railroad track miles:	0
DRA Region Class III Railroad track miles:	377
DRA region total Railroad track miles:	923

Table 14: Tennessee Rail Freight Characteristics

Safety Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Tennken RR	Rehabilitate 15 miles of excepted track	\$7.50
Tennken RR	Install crossing gates – Hwy 51 Bypass	\$0.40
Mississippi Central RR	Rehabilitate 5 miles of excepted track	\$1.80
Mississippi Central RR	Upgrade crossing surfaces/signals	\$0.10
RJ Corman – Tennessee RR	Upgrade 15 crossing surfaces/3 signals	\$0.25
Total Safety Needs		\$10.05

Congestion Relief Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Norfolk Southern	Future LOS F Memphis – Corinth, MS	\$24.0
CSX	Future LOS D Memphis – McKenzie	\$27.0
State ⁷⁹	Feasibility study for new Miss. River bridge	\$0.5
Total Congestion Relief Needs		\$51.5

Freight Mobility Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Tennken RR	Rehabilitate track/bridges for 286k	\$10.80
Tennken RR	Rehabilitate yard	\$1.00
Tennken RR	Expand yard at Dyersburg	\$0.57
KWT RR	Rehabilitate track/bridges for 286k	\$18.90
Mississippi Central RR	Rehabilitate track/bridges for 286k	\$6.00
West Tennessee RR	Expand Humboldt interchange yard	\$0.86
West Tennessee RR	Rehabilitate track/bridges for 286k	\$46.40
Canadian National ⁷⁹	Expand Johnson Yard	\$4.00
Total Freight Mobility Needs		\$88.53

Intermodal Connectivity Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
Tennken RR ⁷⁹	Rehabilitate track for intermodal freight	\$3.0
State ⁷⁹	Feasibility study for Bruceton facility	\$0.2
State ⁷⁹	Feasibility study for Trenton facility	\$0.2
State ⁷⁹	Develop W. Tennessee intermodal feeder system	\$20.0
Total Intermodal Connectivity Needs		\$23.4

Economic Development Needs

Railroad	Infrastructure Need	Cost Estimate (\$ millions)
State ⁷⁹	Construct rail line Dresden – South Fulton	\$12.0
State ⁷⁹	Construct rail line Brownsville – Dyersburg	\$27.0
Total Economic Development Needs		\$39.0

⁷⁹ Tennessee State Rail Plan. Tennessee Department of Transportation. All other needs from short-line railroads.



8.3.10 Needs Summary

The DRA rail freight mainline system plays a critical role within both the region and the nation as whole. The rail system provides major routes for international movements, as well as serving as the linchpin to connect domestic railroads for cross-country movements.

Other than the congestion in Memphis, there are currently few critical capacity constraints on the DRA rail system. However, projected growth rates over the next 30 years will result in service far below efficient levels, especially on lines crossing the Mississippi River.

It is likely that the railroad industry will be able to meet most of the Primary Rail Corridor capacity needs. The Class I railroads should communicate with the DRA and AAR, to ensure all capacity needs are addressed in a timely manner and local shipper needs can be conveyed.

8.4 RAIL FREIGHT RECOMMENDATIONS

8.4.1 Policy Recommendations

To be an effective advocate of rail freight transportation within the DRA region, it is important that DRA's rail policies be consistent with rail policies adopted by the eight states within the DRA region. Although rail policies, objectives and areas of jurisdiction or emphasis differ from state to state, in general state freight rail transportation policies are established to address the following areas:

ECONOMIC DEVELOPMENT

- Support and promote economic activity by preserving and improving the existing freight transportation system;
- Increase employment opportunities with new and/or improved rail freight services and intermodal facilities; and
- Increase the number of businesses served by rail freight.

EFFICIENT FREIGHT DISTRIBUTION

- Ensure rail freight movements serve customers efficiently, effectively and safely;
- Support rail and intermodal services with long-term economic potential;
- Provide facilities that satisfy the requirements of shippers and industry; and
- Promote and support public-private funding partnerships for projects that have clear public benefits.

HIGHWAY CONGESTION MITIGATION

- Reduce vehicular traffic by providing a viable and safe rail transportation alternative; and



- Support the development of transload and intermodal services.

ENERGY AND THE ENVIRONMENT

- Support rail freight and intermodal services that minimize the use of energy and detrimental, environmental impacts.

Through carefully developed transportation policies, cooperative arrangements, and strategic investments, the freight rail system in the DRA region can achieve these goals and objectives and the DRA can focus its rail-related efforts to maximizing the benefits achieved within limited financial capabilities. Core rail-related policies that best meet these criteria would include the following:

- Rail-related investments should result in positive economic development impacts;
- Prioritize freight rail investments on projects that support intermodal services, especially toward cost and energy-efficient rail-water intermodal operations;
- Maximize and leverage funding through joint investments with states, private railroads, and other economic development agencies on projects with proven public benefits and where all parties participate and commit to the project's success; and
- Develop regional coalitions to educate federal and state transportation policies makers on the freight rail needs to ensure a safe, efficient and reliable DRA freight rail system is maintained and expanded to serve future demand.

These recommended core policies are explained in more detail below.

PROJECT RECOMMENDATIONS

Although it is important the DRA support efficient freight rail operations over the entire region, the freight rail focus should be on smaller projects where resources, together with financial support from other public and private entities, can result in system improvements and linkages to intermodal facilities. There are numerous rail-related needs provided by the region's undercapitalized port and short-line rail operators that are candidates for investment. For example, at least eight short-line railroads request assistance to accommodate existing traffic levels through yard or interchange siding expansion projects. It is recommended that projects considered by DRA for financial assistance meet the following criteria:

- Project applicants should provide comprehensive project descriptions, which include detailed public benefits and financial or other commitments from the applicant, shippers or industries served, and/or other public entities.
- Due to the importance of the freight rail system and the inland waterway system in the DRA, it is recommended that joint rail/water intermodal services be given a high priority because of the cost effectiveness and the reduction in detrimental environmental emissions.



- Other project priorities include the following:
 - Invest in rail facilities essential to industries relocating to or expanding in the DRA region;
 - Preserve rail right-of way threatened with abandonment if deemed of future value; and
 - Invest in track/bridge upgrades to accommodate 286,000 car weight on railroads with shippers dependent on the efficient movement of heavy bulk commodities.

The following provides a summary of the areas that are pursuing to develop or expand intermodal facilities in the DRA region:

- Pine Bluff, Arkansas;
- Little Rock, Arkansas;
- McGehee, Arkansas;
- Cairo, Illinois;
- Marion, Illinois;
- Paducah, Kentucky;
- Wickliffe, Kentucky;
- New Orleans, Louisiana;
- Baton Rouge, Louisiana;
- Alexandria, Louisiana;
- Monroe, Louisiana;
- Vicksburg, Mississippi;
- Yazoo City, Mississippi;
- Cape Girardeau, Missouri;
- Scott City, Missouri;
- Tiptonville (Cates Landing), Tennessee;
- Memphis, Tennessee; and
- Other areas of western Tennessee;

The DRA supports continual investment and study to make certain intermodal facilities are identified and constructed throughout the region to ensure freight goods are transported efficiently and economic development opportunities can be strengthened.

COORDINATION AND ECONOMIC DEVELOPMENT RECOMMENDATIONS



Future freight rail needs and issues have been identified in this report. To ensure these needs and issues are addressed throughout the entire region, the DRA is an attractive partner to the rail industry and rail advocacy groups. Specific coordination recommendations include:

- Develop a DRA Freight Rail Working Group, which would have representatives from federal, state, and local transportation agencies, as well as private rail companies in the DRA region and would meet twice a year to share successful rail ventures and to address intermodal freight rail service needs related to economic development initiatives.
- Coordinate with each state DOT in the region to better understand each state's rail-related policies and areas of emphasis, and agree on joint investment priorities.
- Coordinate with each Class I railroad within the DRA region to better understand freight rail priorities and needs and to offer its political support to the rail industry's federal (or state) legislative agenda where it is determined to benefit rail service in the region (e.g. federal tax credits for railroad investment, etc).
- Coordinate with rail providers and state DOTs to preserve the existing rail system to eliminate rail abandonment.
- Ensure proper coordination between private and public sectors is maintained to ensure freight rail and intermodal infrastructure projects are synchronized and funding is secured.
- Attend and participate in freight rail conferences to highlight the DRA freight rail system and to participate in developing rail policies and successful rail improvement methodologies.

FUNDING RECOMMENDATIONS

Freight rail needs in the DRA region exceed available funding. To reduce risk and increase financial leveraging, the DRA is well positioned to develop a freight rail investment funding program (if funds were appropriated) to assist in developing freight rail improvements in the DRA region that have support and financial commitment from the local railroads and shippers that will benefit from the improvement. Thus, a Freight Rail categorical funding program is needed to assist in the development and construction of freight rail infrastructure in the DRA region.

To maintain and improve priority rail corridors in the region, the DRA can support the railroad industry, and especially rail carriers that operate priority rail corridors through the region by highlighting freight rail needs, improvements and policies at the national level to ensure national policies address the needs in the DRA region. Specific federal legislative proposals have already been developed to provide tax credits to railroads investing in improvements that provide additional capacity or intermodal improvements. Additional legislative proposals related to rail freight assistance are expected to arise from the recently published *Transportation for*



Tomorrow: Report of the National Surface Transportation Policy and Revenue Study Commission.

In addition to the above recommendation, the DRA will continue to monitor other funding arrangements that have been successful by states with active rail and economic development programs. These include:

- As an alternative to a freight rail investment funding program, a categorical grant program should be developed and used to fund critical freight rail investments to intermodal facilities in the DRA region.
- If emphasis needs to be on economic development and job creation, an industrial access program could be created to invest in rail spurs to new or expanding industries. The DDHS developed a categorical grant funding recommendation similar to this for roadway connections to intermodal facilities and economic development locations in the DRA region. Funding for these programs are generally comprised of grants and are evaluated on the basis of the total number of new jobs created (in very depressed areas jobs preserved can also be considered).

INTERMODAL RECOMMENDATIONS

A number of railroads noted the need to expand existing intermodal facilities, improve rail infrastructure (track improvements, etc.) to enhance intermodal connections, and to create new intermodal facilities to accommodate prospective intermodal movements. Although improving intermodal connectivity should be a priority goal for the DRA, it should take a conservative approach to financing this still evolving area of freight transportation. The following approach is recommended:

- Develop an intermodal transportation system that supports the economic growth of DRA region through the safe and efficient movement of people and goods.
- Investments in the short-term should be focused on existing, successful intermodal operations, especially where water/rail transfer provides low rates for shippers in the area. A number of existing ports with rail access have requested upgrades to rail infrastructure.
- Investment in expanded bulk transfer facilities, and infrastructure improvements such as loop tracks to improve efficiency at existing intermodal facilities, should be considered where cost/benefit criteria are met.
- Proposals to fund prospective intermodal operations should be analyzed carefully. These proposals should be accompanied with comprehensive market and transportation plans, as well as documented commitments by shippers or industries served by the prospective facilities.
- Fund a Federal Rehabilitation Grant Program that would benefit smaller railroads in the DRA region.



PRIORITY RECOMMENDATIONS

Freight railroads significantly impact the regional and local economies where bulk commodities are produced and/or transferred in large quantities. The following are priority recommendations to support the freight rail transportation system in the DRA region:

- Develop and fund a Freight Rail categorical grant program to assist in the development and construction of freight rail infrastructure in the DRA region.
- Develop a DRA Freight Rail Working Group.
- Class III (local) railroads typically do not generate sufficient revenue to support needed infrastructure improvements and large capital equipment procurement. Ensure Class III (local) railroads have adequate funding to support infrastructure and equipment needs so connectivity to Class I railroads throughout the DRA region is maintained and expanded.
- Each year rail track is abandoned and this potentially leaves industries exclusively dependent on moving goods with truck freight providers. To ensure all existing railroad track is preserved, coordinate with appropriate entities to protect strategic railroad right-of-way for possible future use.
- The condition and safety of highway and railroad at-grade crossings along roadways, especially near freight terminals is a major barrier to freight movement. Ensure highway and railroad grade crossings are safe and provide efficient freight movement at high traffic crossings and at major freight terminals in the DRA region.
- Fund a Federal Rehabilitation Grant Program that would benefit smaller railroads in the DRA region.
- Monitor and potentially fund intermodal studies and projects that are important to the economic competitiveness of the DRA region.
- Support improvements to the high-priority freight multimodal corridors and intermodal facilities in the DRA region.
- Coordinate a regional approach to address freight transportation needs for high-priority freight multimodal corridors and intermodal facilities in the DRA region.
- Ensure the freight rail transportation system security is enhanced by providing closed circuit television cameras that are linked to state Traffic Management Centers (TMCs) at major railroad bridge crossings and strategic intermodal facilities.