KRPD#2 PORT MASTER PLAN

FINAL 5/14/2020

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Table of Contents

1. Introduction and Purpose 5
2. Characteristics of Inland Waterway Transportation 10
2.1. Barges and Towboats 11
2.2. Locks and Dams 12
2.3. Modal Characteristics 12
3. Modal Connectivity to KRPD#2 18
3.1. Waterway Access to KRPD#2 18
3.2. Rail Access to KRPD#2 19
3.3. Highway Access to KRPD#2 19
4. Existing Facilities and Operations 23
4.1. Gateway FS 23
4.2. The Material Works (TMW) 25
4.3. Southern Illinois Transfer Company (SITCO) 26
5. Land Ownership and Physical Features 32
6. On-site Barge, Rail, Truck and Crane Operations 41
6.1. Barge Access and Operations 41
6.2. Rail Access and Operations 42
6.3. Truck Traffic Patterns and Operations 42
6.4. Overhead Bridge Crane Operations 44
7. Assessment of Relevant Waterborne Commerce Trends and Data 50
8. Primary Market Area for KRPD#2 78
8.1. Population 78
8.2. Agricultural Production 78
8.3. Energy Production 79
8.4. Area Industries 79
8.5. Container-on-Barge 79
8.6. KRPD Area Information from a Recent KRPD#1 Study 81
8.7. Market Assessment Summary 81
9. Development of Responsive Planning Criteria 93
9.1. Considerations for River Access 93
9.2. Considerations for Rail Improvements 94
9.3. Considerations for Roadway Improvements 94
9.4. Considerations for Other Site Improvements 95
10. Alternatives for Future Development 96
10.1. Navigable Access to KRPD#2 96
10.2. Development of a New Barge Dock 96
10.3. Rail Improvement Options 98
10.4. Roadway Improvement Options 99
10.5. Options for Other On-Site Port Operations Improvements 100
10.6. Options for Development of Sites for New Port Users 101
11. Strategic Capital Development Plan Recommendations 113
11.1. Primary Features of the Plan and Implementation Strategies 113
11.1.1. Navigation Access 113

11.1.2. New Barge Dock 114
11.1.3. Rail Improvements 114
11.1.4. Roadway Improvements 115
11.1.5. Other Site Improvements 115
11.2. Opinions of Budget Requirements for Strategic Capital Investments 116
11.2.1. New Access Road 116
11.2.2. New Port Operations Area 117
11.2.3. Sites for New Barge and Rail Users 118
11.2.4. Rail Improvements 119
11.2.5. New Barge Dock 120
11.2.6. Development of Sites for New Barge and Rail Users North of the Rail Corridor 121
11.3. Closing 121

List of Exhibits

Exhibit 1-1: Market Area of KRPD in Southern Illinois 9
Exhibit 2-1: Location of KRPD on the Inland Waterway System 14
Exhibit 2-2: KRPD#2 – Location of KRPD Facilities and Boundary 15
Exhibit 2-3: comparison of Pollution & Fuel Efficiencies by Mode 16
Exhibit 2-4: Capacities for Various Freight Units 17
Exhibit 3-1: Jerry F. Costello Lock and Dam, Kaskaskia River 20
Exhibit 3-2: KRPD#2 – Regional Rail Connections 21
Exhibit 3-3: KRPD#2 – Regional Highway Connections 22
Exhibit 4-1: Major Facilities and Operations at KRPD#2 27
Exhibit 4-2: Gateway FS Facilities at KRPD#2 28
Exhibit 4-3: Conveyor setup at Overhead Bridge Crane 29
Exhibit 4-4: Conveyor to FS 30
Exhibit 4-5: Gateway FS Dry Bulk Fertilizer Storage Building 31
Exhibit 5-1: Relevant Land Ownership at KRPD#2 36
Exhibit 5-2: LiDAR 100-Year Flood Contour at KRPD#2 37
Exhibit 5-3: Comparison of FEMA Floodplain Mapping and LiDAR 100-Year Flood Contour 38
Exhibit 5-4: Soils Information for KRPD#2 39
Exhibit 5-5: Environmentally Sensitive Areas at KRPD#2 40
Exhibit 6-1: Typical Barge Operations at KRPD#2 45
Exhibit 6-2: Typical Rail Operations at KRPD#2 North of SR 154 46
Exhibit 6-3: Typical Truck Operations – Gateway FS 47
Exhibit 6-4: Typical Truck Operations – TMW 48
Exhibit 6-5: Typical Truck Operations to Bulk Dock 49
Exhibit 7-1: The US Inland Waterway System 55
Exhibit 7-2: Commodities Moving on the US Inland Waterways in 2018 56
Exhibit 7-3: National Inland Waterways Total Tonnage Trends, 2008-2018 57
Exhibit 7-4: Location of the Upper Mississippi River within the US Inland Waterway System 58
Exhibit 7-5: Commodities Moving on the Upper Miss (RM 0-866), 2018 59
Exhibit 7-6: Trends on the Upper Mississippi River, Minneapolis, MN to mouth of Ohio River (RM0-866), 2007-2018 60
Exhibit 7-7: Upbound/Downbound Traffic by Commodity on the Upper Miss (RM 0-866), 2018 61
Exhibit 7-8: Location of Upper Mississippi (RM 0-195) 62
Exhibit 7-9: Commodities Moving on the Upper Miss (RM 0-195), 2018 63
Exhibit 7-10: Trends on the Upper Mississippi river, Mouth of Missouri River to Mouth of Ohio (RM 0-195), 2007-2018 64
Exhibit 7-11: upbound/Downbound Traffic by Commodity on the Upper Miss (RM 0-195), 2018 65
Exhibit 7-12: Kaskaskia River and KRPD Terminals 66
Exhibit 7-13: Commodities on the Kaskaskia River, 2018 67
Exhibit 7-14: Trends on the Kaskaskia River, 2007-2018 68
Exhibit 7-15: Traffic Moving Upbound and Downbound on the Kaskaskia River, 2018 69
Exhibit 7-16: KRPD Terminals Tonnage Trends, 2013-2018 70
Exhibit 7-17: Tonnage at KRPD Terminals, 2013-2018 71
Exhibit 7-18: Commodities Handled at KRPD#2 in 2018 72
Exhibit 7-19: Commodity Trends at KRPD#2, by Barge Only, 2013-2018 73

Exhibit 7-20: Commodity Trends at KRPD#2, 2013-2018 74
Exhibit 7-21: Commodities Handled at KRPD#2 in 2018, including Steel by Rail 75
Exhibit 7-22: Commodity Trends at KRPD#2, Including Steel by Rail, 2013-2018 76
Exhibit 7-23: Commodity Trends at KRPD#2, Including Steel by Rail, 2013-2018 77
Exhibit 8-1: Primary Market Area for KRPD#2 83
Exhibit 8-2: Population Distribution in the KRPD#2 Market Area 84
Exhibit 8-3: Soybean Production by County in the KRPD#2 Market Area 85
Exhibit 8-4: Corn Production by County in the KRPD#2 Market Area 86
Exhibit 8-5: Wheat Production by County in the KRPD#2 Market Area 87
Exhibit 8-6: Mines and Power Plants in the KRPD#2 Market Area 88
Exhibit 8-7: Manufacturing Establishments by Market Area County, 2016 89
Exhibit 8-8: Manufacturing Establishments in the KRPD#2 Market Area 90
Exhibit 8-9: Manufacturing Employees by Market Area County, 2016 91
Exhibit 8-10: Manufacturing Employees in the KRPD#2 Market Area 92
Exhibit 10-1: Alternative Locations for Liquid Bulk Transfer 103
Exhibit 10-2: Alternative River-1: Upstream from Existing Docks 104
Exhibit 10-3: Alternative River-2: Downstream from Existing Docks 105
Exhibit 10-4: Sheet Pile Dock Option at Location River-2 106
Exhibit 10-5: Options for Rail Yard Improvements 107
Exhibit 10-6: Options for Extending Rail to North Sites 108
Exhibit 10-7: Options for Rail-to-Barge Bulk Transfer and South Track Extensions 109
Exhibit 10-8: Alternatives for New Roadway Access 110
Exhibit 10-9: Alternatives for Site Improvements 111
Exhibit 10-10: Potential Sites for Economic Development and New Port Users 112
Exhibit 11-1: Recommended Location and General Layout for Third Dock 126
Exhibit 11-2: Overview of All Rail Improvements 127
Exhibit 11-3: Recommended Options for a New Access Road 128
Exhibit 11-4: New Port Operations Area 129
Exhibit 11-5: Potential Sites A, B, C, D, E and F 130
Exhibit 11-6: North Rail Yard Improvements 131
Exhibit 11-7: Development Sites North of Rail Corridor 132
Exhibit 11-8: Overview of Master Plan Recommendations 133

1. Introduction and Purpose

The Kaskaskia Regional Port District (KRPD) is located in Southwestern Illinois and includes all of Monroe and Randolph counties and the southern two-thirds of St. Clair County as shown in ***Exhibit 1-1***.

KRPD was chartered in 1965 by an act of the Illinois Legislature and currently operates five river terminals, four on the Kaskaskia River and one on the Mississippi River, with long range plans for developing additional facilities. The purpose of this River Port Master Plan is to address existing conditions, future needs and future strategic capital developments at one of those locations, KRPD#2.

As business at KRPD#2 has increased, on-site traffic conflicts, periodic congestion and operational issues have arisen. This Master Plan considers past port activities and potential future port activities and makes recommendations for a phased capital investment program. The scope of work for this River Port Master Plan is summarized below.

1. Review information provided by KRPD regarding the history of port development at KRPD#2, past US Army Corps of Engineers (USACE) permits, and the existing KRPD Strategic Plan.
2. Prepare a brief description of existing port conditions including a base map showing major existing facilities, land ownership within KRPD#2 (based on publicly available information provided by Randolph County) and adjacent parcels to the north and west, publicly available soils information, geotechnical information provided by KRPD, past surveys provided by KRPD, topography and floodplain elevations based on LiDAR and based on FEMA flood maps. (Field surveying is not within the scope of work.)
3. Prepare a regional map showing major freight transportation connectors for KRPD#2 including highways, railroads and waterways.
4. Review information provided by KRPD regarding current and past business activities at KRPD#2, will review tenant agreements and operating agreements (if KRPD#2 is in agreement to do so) to further enhance our understanding of the port operations, will observe traffic flows on-site, will attempt to meet with KRPD#2 tenants to discuss traffic flows and issues, and will use this information to prepare traffic flow diagrams for each commodity type currently moving through KRPD#2.
5. Prepare a brief memorandum describing its understanding of existing conditions and primary issues at KRPD#2.
6. Meet with KRPD representatives to review the team's understanding of existing conditions and primary issues to confirm a mutual understanding with KRPD.
7. Request historical waterborne commerce data from USACE for the Kaskaskia River, the Upper Mississippi River and the inland waterway system, and assess the data to identify relevant trends.
8. Provide a brief assessment regarding general characteristics of container-on-barge (COB), and a description of key business factors regarding COB in context of KRPD#2.

9. Attempt to interview on-site tenants, current KRPD#2 users and others, within project budget constraints, to determine their opinions of potential future business for KRPD#2, along with a brief summary of relevant national trends.
10. Provide a general opinion of future trends relevant to planning for the third dock.
11. Attempt to meet with Canadian National Railroad (CN) representatives, current KRPD#2 users and others, within project budget constraints, to assess potential rail demands.
12. Meet with KRPD representatives to review the team's opinion of future demands for rail and waterborne commerce and other factors relevant to planning for new KRPD#2 facilities, and to confirm a mutual understanding with KRPD.
13. Using the planning criteria presented in task 12 (as described above) and the base mapping and understanding of existing conditions presented in task 6 (as described above), formulate alternative development plans for the third dock, rail, road and site improvements.
14. Evaluate the advantages and disadvantages of the viable alternatives, and recommend a plan for strategic capital improvements.
15. Coordinate with USACE, US Fish and Wildlife Service, IDOT, Illinois EPA, IDNR, and appropriate units of local government as the work progresses.
16. Meet with KRPD representatives to review the analysis of alternatives and recommendations for capital improvements, and to confirm a mutual understanding.
17. Prepare preliminary opinions of order-of-magnitude construction costs for the recommended capital improvements, and provide a plan for phased implementation over the next 20 years. Categorized into (0- 5 year), (5-10 year) and (10- 20 year) categories.
18. Identify land near KRPD#2 which is needed for the recommended capital improvement plan and to enhance KRPD#2 operations.
19. Make recommendations for timing of environmental studies, permits needed for implementation of the capital development program and recommended timing for preparation of permit applications.
20. Prepare renderings of the recommended design for the third dock (to be mounted on 2 ft x 3 ft boards).
21. Prepare a draft Port Master Plan report for review by KRPD. The full Port Master Plan is intended for use within KRPD.
22. Prepare an Executive Summary of the Port Master Plan. The Executive Summary will contain an abbreviated description of existing conditions and the recommended capital improvements plan, which may be more suitable for wider distribution and sharing with others.
23. Meet with KRPD representatives to make a final presentation of the complete Port Master Plan.
24. After receipt and resolution of comments from KRPD, prepare and deliver fifteen (15) bound copies of the Port Master Plan and fifty (50) bound copies of the Executive Summary, along with pdf files for both the Port Master Plan and Executive Summary.

The duration of the project is anticipated to be approximately twelve (12) months after receipt of a signed sub-consultant agreement and written Notice-to-Proceed (NTP).

It essentially consists of five major elements: (a) documentation and confirmation of existing conditions and issues, (b) general assessment and characterization of potential markets; (c) development of

planning criteria; (d) formulation and evaluation of viable alternatives, and (e) presentation of the recommended plan for strategic capital development.

Written documentation of existing conditions is vital as it forms part of the foundation for planning. Having it in written form allows KRPD representatives to review and confirm a common understanding with the planning team.

Regarding existing conditions at KRPD#2, this report includes relevant descriptions of:

- major freight transportation connectors including highways, railroads and waterways,
- existing port conditions and existing facilities,
- land ownership,
- soils and geotechnical information,
- river conditions,
- topography,
- floodplain elevations,
- environmental conditions,
- summaries of current and past business activities, and
- traffic flow patterns observed from on-site visits and meetings with KRPD#2 tenants.

A brief assessment of waterborne commerce trends is presented to provide further context for KRPD#2 based on data for the US inland waterway system, Upper Mississippi River and Kaskaskia River. In addition to waterborne commerce information, economic and demographic research is used along with field observations and interviews to form opinions regarding potential future business for KRPD#2 relevant to developing planning criteria.

Alternative plans for future capital investments are presented considering existing conditions and responsive to goals described in the planning criteria. General areas addressed include:

- Road access and on-site roadway improvements
- Rail access and on-site rail improvements
- River access and on-site river terminal improvements
- Preparation of pad-ready site for future tenants which will use KRPD#2 facilities
- Site development activities related to all of the above
- Policies, operations and other non-structural options

Advantages and disadvantages of viable options are discussed and a recommended plan for strategic capital development is presented along with a plan for phased implementation. This Master Plan

includes a general site plan to show strategic placement of facilities based on functional relationships, and indicates the general scale and location of features. It does not include detailed design, nor does it include engineering and construction contract documents.

KRPD is an important contributor to the economic development efforts of the region. The underlying purpose of its existence is to improve the economic health of the area by providing river port access to industrial, agricultural and other users. It is, therefore, appropriate and important for KRPD, as a good steward of its facilities, to plan for efficient and productive long-term use of KRPD#2.

The master planning document will be used not only for guidance and strategic direction, but also as a communications tool in sharing KRPD's vision with key community leaders, other government entities, investors and potential tenants and customers.

KRPD selected Thouvenot, Wade and Moerchen, Inc. (TWM), to prepare the KRPD#2 River Port Master Plan, with W. R. Coles and Associates as a subconsultant to TWM. The project is funded by KRPD and a grant from the Illinois Department of Transportation State Planning and Research Program.

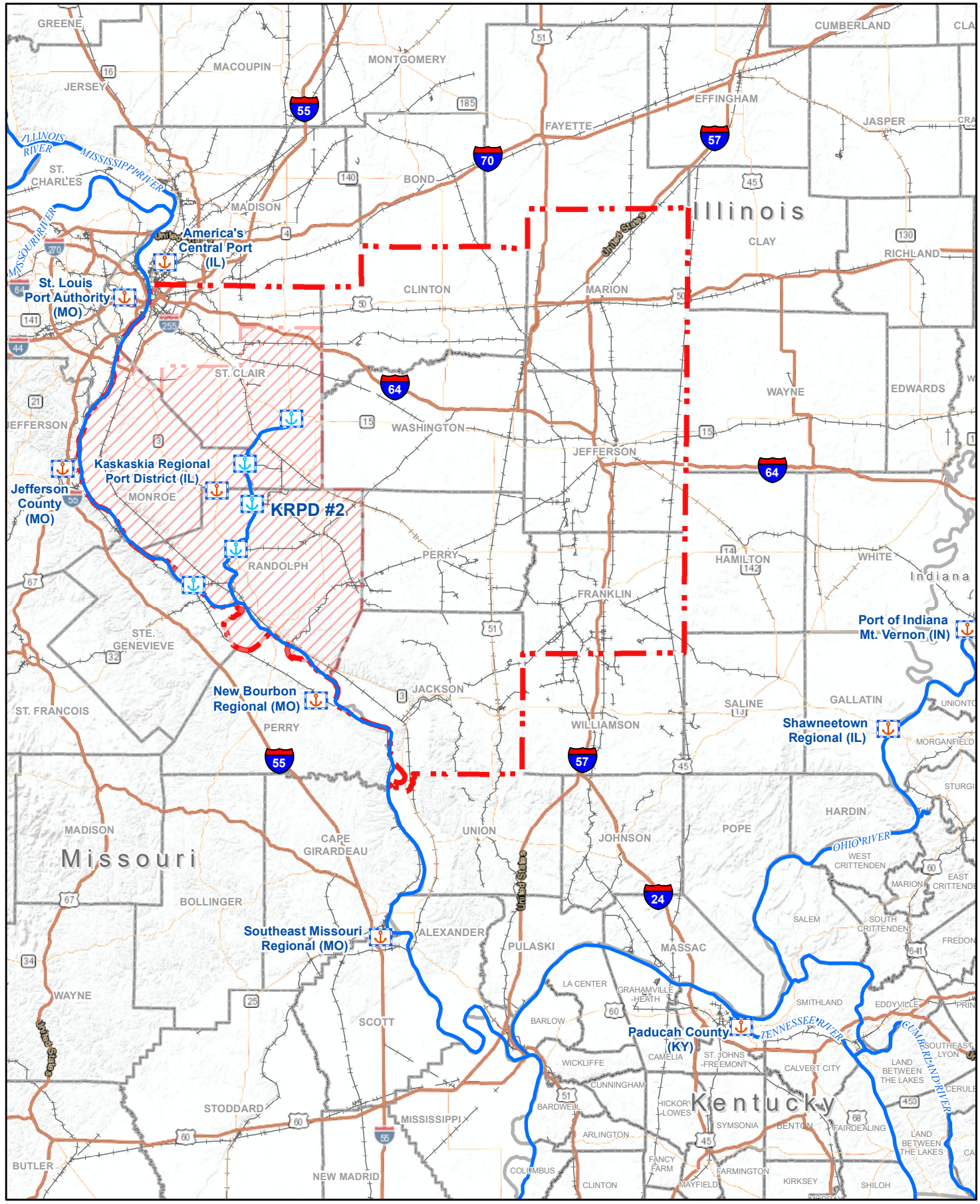


EXHIBIT 1-1:
KASKASKIA REGIONAL PORT DISTRICT
Market Area of KRPD in Southern Illinois

2. Characteristics of Inland Waterway Transportation

In the early history of the United States, the network of waterways was the primary means of interstate commerce and transportation of goods, as well as people. As a result, most large metropolitan areas and population centers are located on coastal and navigable waterways.

The Inland Waterways System is made up of nearly 12,000 miles of federally maintained navigable waterways on rivers, lakes, and coastal bays, touching 38 of our 48 contiguous states and handling shipments to/from the 38 states. The system has 240 lock sites that incorporate 275 lock chambers. The Kaskaskia River, on which KPD#2 is located, is a part of this system. ***Exhibit 2-1*** shows the location of KRPD#2 on the Inland Waterways System.

The 9,000-mile Mississippi River System (the Mississippi and its tributaries) stretches from Minneapolis, Minnesota, to New Orleans, Louisiana, and from Tulsa, Oklahoma, to Pittsburgh, Pennsylvania.

The Kaskaskia River System is a 36 mile navigable waterway, with a single lock, known as the Jerry F. Costello Lock and Dam, at Kaskaskia River Mile (KRM) 0.8, as shown on ***Exhibit 2-2***.

The Inland Waterways System facilitates the cost-effective and environmentally friendly movement of liquid and dry bulk commodities, as well as heavy manufactured goods, such as steel and aluminum.

Approximately fifteen percent of all the goods moving around the country move on the waterways, according to the Waterways Council, Inc. The Inland Waterway system moves that fifteen percent of freight for under three percent of our nation's cost of moving freight.

River transportation in the US saves shippers $7 billion annually in transportation costs by providing a more energy-efficient and environmentally friendly form of conveyance than rail or road transportation modes. This reduces overland congestion, accidents, and noxious pollutant emissions. Moving goods economically allows farmers, manufacturers, and other industries to be more competitive in world markets and lets consumers enjoy lower product costs.

Barge transportation helps relieve highway congestion and generates far less air and noise pollution, per ton of freight moved, than truck or rail. Freight movement on the nation's waterways greatly reduces wear and tear on highways and bridges. Studies show that inland waterways transport generates fewer emissions of particulate matter, hydrocarbons, carbon monoxide and nitrous oxide than rail or truck on a per-ton-mile-moved basis. For every ton of commerce moved by barge, we reduce our carbon emissions into air by 73 percent compared with truck transportation (***Exhibit 2-3***).

Waterborne commerce is good for the national economy, supporting family-wage jobs and providing the consumer with lower costs for food, electricity, heavy manufactured products, salt for de-icing roads, building materials and other goods.

2.1. Barges and Towboats

A standard jumbo hopper barge is 35 feet wide and 195 feet long. On the Upper Mississippi, the Ohio River, and other portions of the inland waterway system with locks and dams, a barge typically drafts nine feet when loaded. Since there are no locks between St. Louis and New Orleans, barges may be loaded to deeper drafts on the Lower Mississippi. The typical tow on the Upper Mississippi or the Ohio River has 15 of these barges—three wide and five long—winched together with cables and stretching nearly 1,000 feet. Barges are designed to efficiently ship products such as grain, fertilizer, other dry bulk products, break-bulk products like steel and aluminum, and liquid products like oils, chemicals, asphalt and other petroleum products that are measured by the thousands of tons, bushels, and barrels—vital materials for the sustenance and global competitiveness of our economy.

River vessels designed primarily to push barges throughout the US inland waterway systems are typically referred to as towboats. Towboats range in size and horsepower dependent upon the area of primary operations. The upper Mississippi River and the Ohio River have numerous locks and dams to pass through. Towboats on these river systems typically range from 4,000 to 6,000 horsepower, while towboats operating on the lower Mississippi River have much greater horsepower. Below St. Louis, the Mississippi River becomes much wider and deeper, and there are no locks and dams; therefore, more barges can be pushed by each towboat. A river tow is comprised of barges arranged in longitudinal rows called strings and positioned directly ahead of the towboat. A tow on the lower Mississippi typically

consists of 30 to 50 barges, while tows on the Upper Mississippi and the Ohio River systems have a maximum of 15 barges.

On the Kaskaskia River, smaller towboats are required and barge tows of one to four barges are more common, with as many as five barges occasionally making up the tow.

The average speed and transit time for a tow is influenced by many factors, including (1) river width; (2) number of bends in the river; (3) water depth fluctuations depending on normal, flood or drought conditions; (4) locking time at each lock and dam; (5) horsepower of the towboat; (6) number of stops at ports along the transit route. The typical speed of a barge tow varies between 3.5 mph and 10 mph, with a realistic average speed in the mid-point of this range.

2.2. Locks and Dams

The US Army Corps of Engineers (USACE) is authorized by the US Congress to construct, maintain, and operate the locks and dams and is responsible for maintaining the navigable channel. A newer Upper Mississippi or Ohio River lock is 1200 feet long by 110 feet wide, which is sufficient for containing an entire 15-barge tow and the towboat in a single lockage. Older locks are 600 by 110 feet, and 15-barge tows must be broken apart, requiring a double lockage. The Kaskaskia River Lock dimensions are 600 feet long by 84 feet wide.

2.3. Modal Characteristics

Efficient barge transportation can move one ton of grain 647 miles on one gallon of fuel. That is 170 miles better than railroads and 502 miles farther than trucks. ***Exhibit 2-3*** shows the fuel efficiency of barge transportation by comparing the number of miles each mode can carry one ton of cargo on one gallon of fuel.

Two-thirds of all domestic freight was moved by truck according to the US Department of Transportation Maritime Administration's *America's Marine Highway Report to Congress*. The nation's heavy reliance on truck transportation for the movement of domestic freight has contributed to the nation's dependence on petroleum. The US Department of Energy reports that energy use by the

transportation sector will grow through the year 2035, and trucks will account for the largest share of this growth: 38 percent. In the US, most freight movements start and end by truck, even when other more efficient modes are used for the long haul.

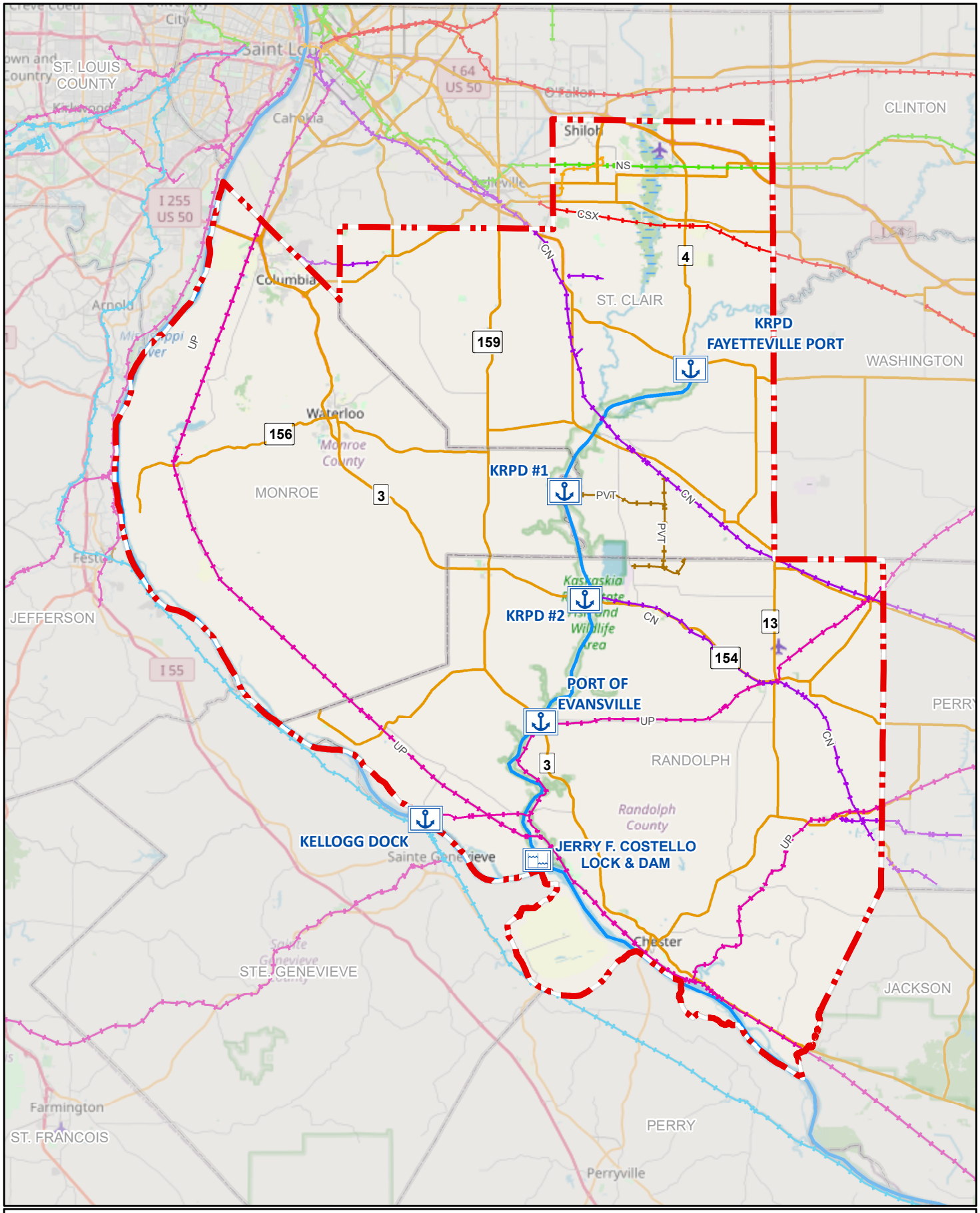
A standard jumbo hopper barge (195 feet long by 35 feet wide) basically carries the equivalent of about 14 jumbo hopper railroad cars or 58 trucks, depending on the density of the cargo or commodity.

A 15-barge tow can carry 22,500 tons of cargo, which is equivalent to 787,500 bushels of grain or 6.8 million gallons of fuel oil, according to figures charted by the Iowa Department of Transportation. To carry the same amount of cargo, it would take two trains each made up of 100 jumbo hopper rail cars each, stretching out for 2.4 miles. By truck, that same amount of cargo would require 870 semis, stretched out for 11.5 miles bumper to bumper.

The standard capacities for various freight units across all three modes of transportation are summarized in ***Exhibit 2-4***.

If the cargo moving on the waterways in one year had to be transported by other modes of transportation, it would require 6.3 million rail cars or 25.2 million trucks in addition to those already in use, according to a report by the Corps titled *Inland Waterway Navigation: Value to the Nation*.

EXHIBIT 2-1:
KASKASKIA REGIONAL PORT DISTRICT
Location of KRPD on the Inland Waterway System



Navigable Waterway
KRPD Facilities
KRPD Boundary
County Boundary
BNSF Railroad
CN Railroad
CSX Railroad
NS Railroad
UP Railroad
Private Railroad
Public Transportation

EXHIBIT 2-2:
KASKASKIA REGIONAL PORT DISTRICT
KRPD #2 - Location of KRPD Facilities and Boundary

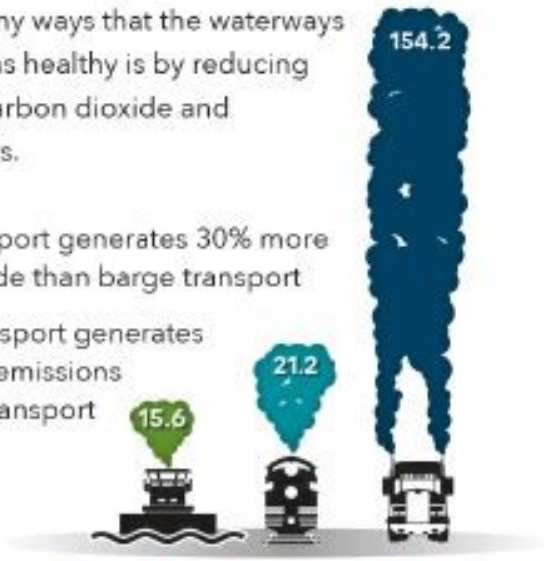
10 Miles

N

Cleaner Air Today is the Foundation for a Brighter Future

One of the many ways that the waterways keep Americans healthy is by reducing emissions of carbon dioxide and other pollutants.

- Railway transport generates 30% more carbon dioxide than barge transport
- Highway transport generates 1000% more emissions than barge transport



Tons of CO_2 per Million Ton-miles

Barge Transportation on Our Waterways is the Most Fuel Efficient Form of Surface Transportation

Ton-miles Traveled per Gallon of Fuel

Source: *A Strong Inland Waterways System Delivers a Stronger American Economy*. National Waterways Foundation, 2017.

EXHIBIT 2-3:
KASKASKIA REGIONAL PORT DISTRICT
Comparison of Pollution & Fuel Efficiencies by Mode

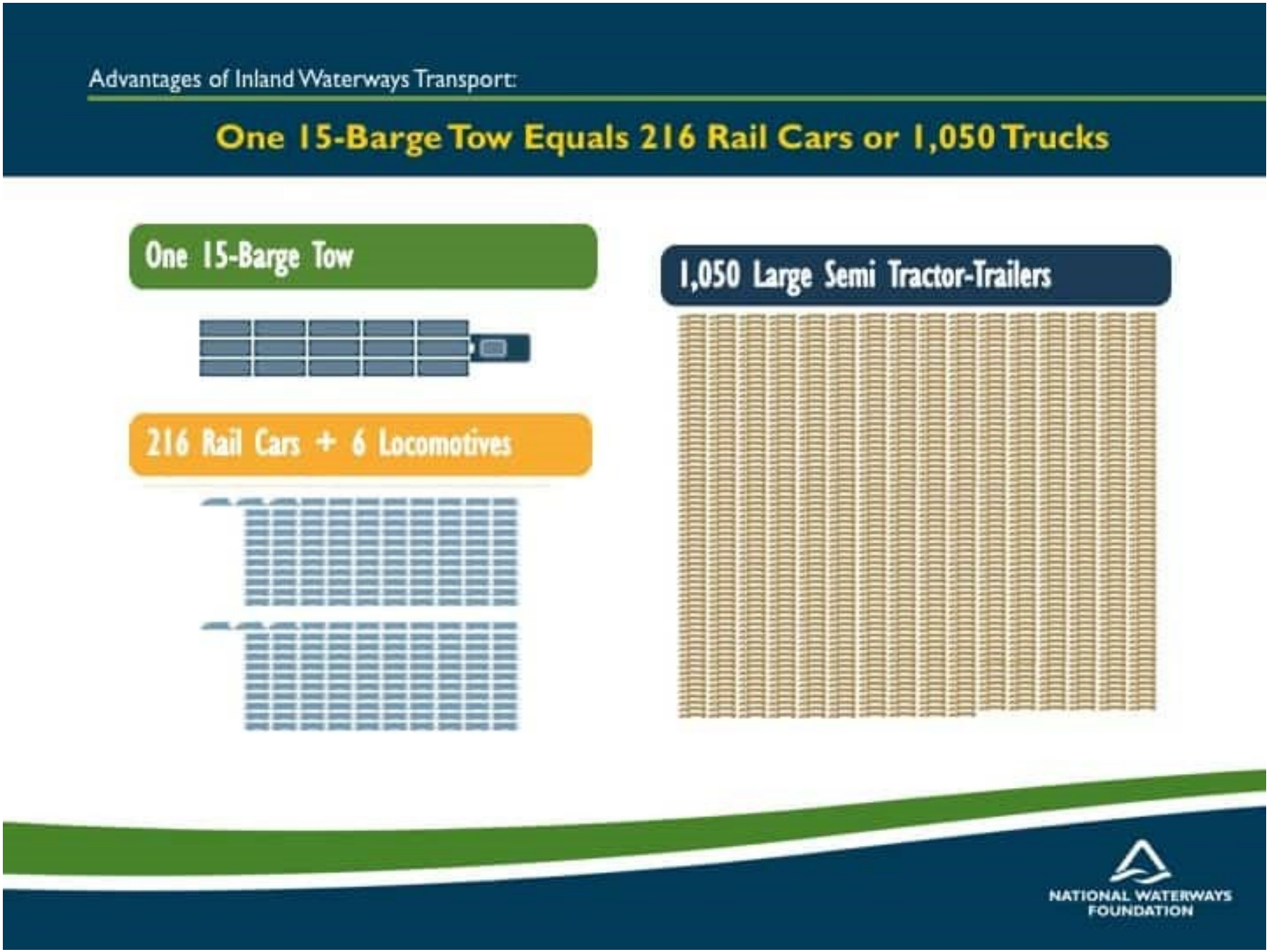


EXHIBIT 2-4:
KASKASKIA REGIONAL PORT DISTRICT
Capacities for Various Freight Units

3. Modal Connectivity to KRPD#2

Access to/from KRPD#2 by water, rail and road has been examined. Information is summarized in the following subsections.

3.1. Waterway Access to KRPD#2

The US Inland Waterway System provides access between KRPD#2 and both domestic and global markets. The Jerry F. Costello Lock and Dam is located at mile 0.8 on the Kaskaskia River. ***Exhibit 3-1*** is an aerial view of the lock and dam. Lock chamber dimensions are 600 feet long by 84 feet wide, and the maximum lift is 29.2 feet according to USACE.

Southern Illinois Transfer, Inc. (SITCO) provides barge towing and fleeting service on the Kaskaskia River. SITCO has additional operations on the Mississippi River. Virtually all Kaskaskia River barge traffic is moved by SITCO from a nearby Mississippi River barge fleet owned and operated by SITCO. Typical one-way transit time between the fleet and KRPD#2 (KRM 18.5) is 4 to 6 hours, or 8 to 12 hours for a round trip. SITCO has several towboats and serves all KRPD river terminals.

According to the USACE St. Louis District, the Kaskaskia River is normally operated to sustain a pool elevation of 368.8. Prolonged high water disrupted navigation to KRPD#2 in the spring of 2019.

The 100-year flood elevation is reported to be 392 (NAVD 88) as cited in the November 2008 flood insurance rate map (FIRM) for Randolph County. The information shown above is adequate for planning, but before any surveying, design or construction project it is important to verify the vertical datum on which elevations are based, especially when relating river elevations to land-side developments. In some cases, they may be on different datum. Further investigation is needed to verify datum used for these elevations.

KRPD leaders have approached USACE regarding the benefits of increased navigation depth to more closely align Kaskaskia River maximum barge drafts (and corresponding barge capacities) with Lower Mississippi River barge drafts. These discussions are ongoing.

3.2. Rail Access to KRPD#2

Relevant regional railroads are shown on ***Exhibit 3-2***. Rail service to KRPD#2 is provided by the Canadian National Railroad (CN) to a track north of Illinois State Route 154. A KRPD switch engine operated by SITCO moves rail cars to/from this staging track, across SR 154 to the river terminal where rail car loading/unloading operations currently take place.

CN provides service to KRPD#2 once or twice a week, depending on demand, from its yard in Centralia, Illinois. CN owns a rail yard at Baldwin but no longer keeps crew or equipment at Baldwin. CN traffic between KRPD#2 and Centralia primarily transits CN trackage, but must also utilize a small segment of Union Pacific (UP) rail lines.

Rail capacity at KRPD#2 is limited in part by the length and configuration of the siding on which CN delivers and picks up rail cars. Further discussion and assessment of this siding is covered in the on-site rail infrastructure section, later in this report.

3.3. Highway Access to KRPD#2

Major regional roads are shown in ***Exhibit 3-3***. Access to the main KRPD#2 entrance roadway is provided from SR 154. No off-site truck traffic issues were noted in observations and none were reported in interviews with users. There is a grade change on the small hill west of the main truck entrance to KRPD#2 which could influence considerations of alternative truck access points in the future.

EXHIBIT 3-1:
KASKASKIA REGIONAL PORT DISTRICT
Jerry F. Costello Lock and Dam, Kaskaskia River

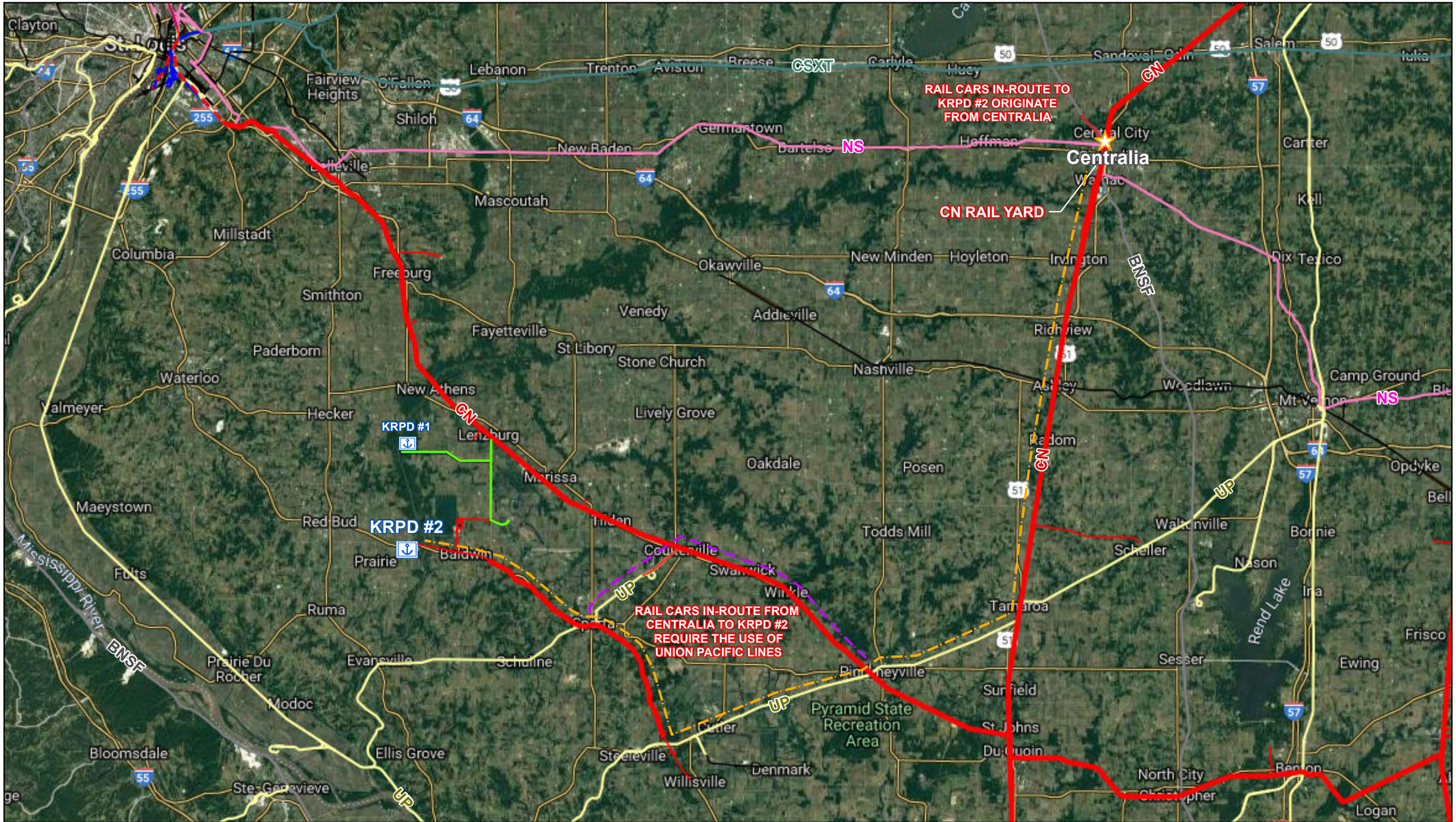
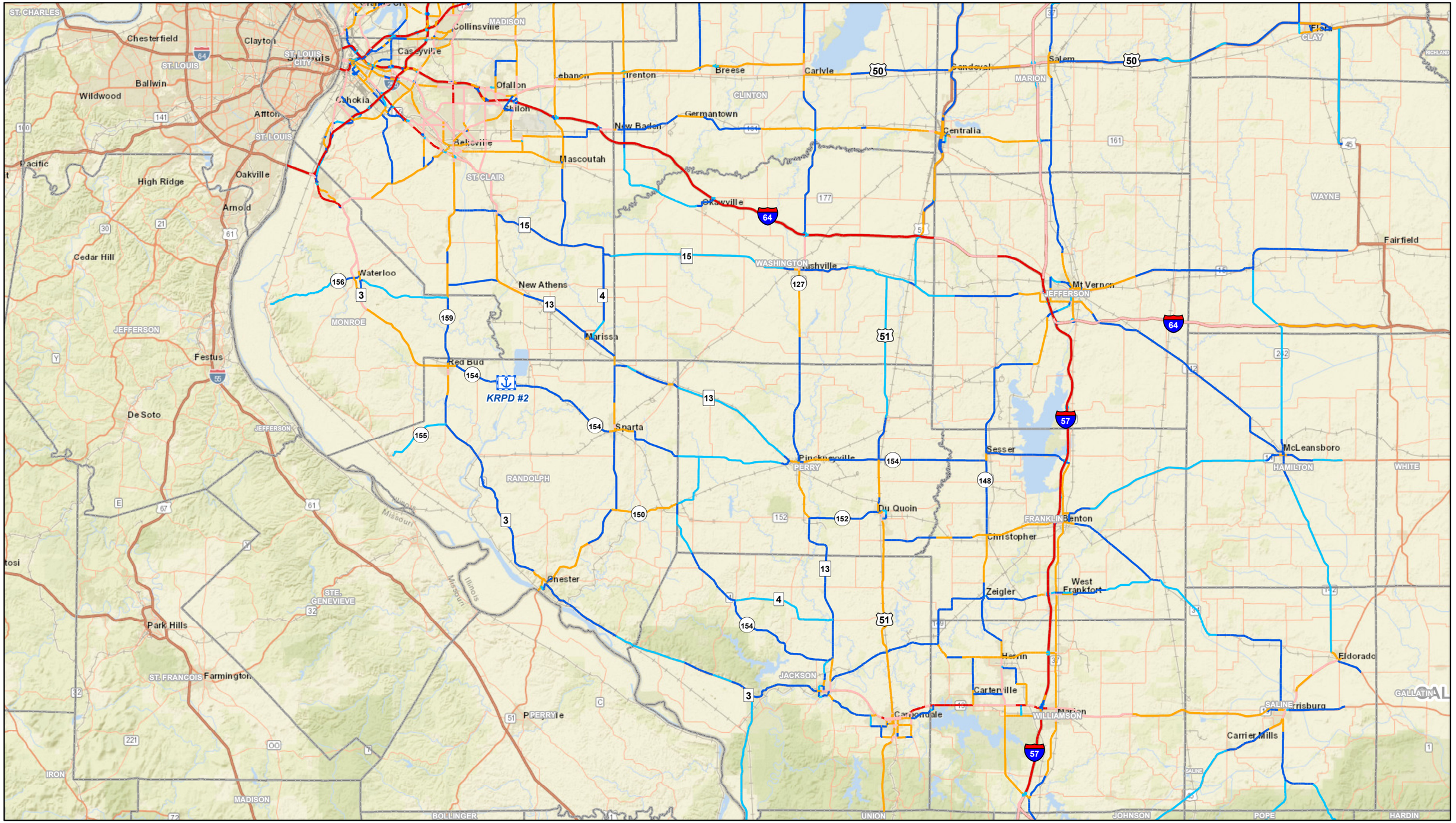


EXHIBIT 3-2:

KASKASKIA REGIONAL PORT DISTRICT

KRPD #2 - Regional Rail Connections


ST. CHARLES
Chesterfield
Clayton
ST. LOUIS
St. Louis
Ballwin
Wildwood
Affton
Pacific
High Ridge
Oakville
Arnold
Cedar Hill
JEFFERSON
Festus
De Soto
IRON
MADISON
STE. GENEVIEVE
Park Hills
ST. FRANCOIS
Farmington
Missouri
Illinois
Collinsville
Caseyville
Cahokia
Ofallon
Lebanon
Trenton
Breese
Carlyle
Sandoval
Salem
MARION
CLINTON
Shiloh
New Baden
Germantown
Centralia
Belleville
Mascoutah
ST. CLAIR
Okawville
Waterloo
New Athens
Marissa
MONROE
Red Bud
KRPD #2
Sparta
RANDOLPH
Chester
PERRYville
Nashville
WASHINGTON
Mt Vernon
JEFFERSON
Fairfield
WAYNE
CLAY
Pinckneyville
PERRY
Du Quoin
Sesser
FRANKLIN
Benton
Christopher
McLeansboro
HAMILTON
WHITE
Zeigler
West Frankfort
Herrin
Carterville
Carbondale
WILLIAMSON
Marion
Eldorado
SALINE
Harrisburg
Carrier Mills
GALLATIN
JACKSON
UNION
JOHNSON
POPE
HARDIN
BOLLINGER
Average Daily Traffic
Under 2500
2,501 - 5,000
5,001 - 10,000
10,001 - 25,000
Over 25,000
County
EXHIBIT 3-3:
KASKASKIA REGIONAL PORT DISTRICT
KRPD #2 - Regional Highway Connections
10
Miles
N

4. Existing Facilities and Operations

KRPD#2 operations began in 1985. Facilities at that time included the bulk dock, mooring structures and access road. Major KRPD improvements since the initial construction include:

- 1997 - the Stanley L. Reeble Dock Facility (consisting of new mooring structures, the overhead bridge crane and building)
- 2003 - rail access
- 2016 - road repairs and improvements

Operations at KRPD#2 currently include Gateway FS, involving fertilizer distribution and related services; The Material Works (TMW), which processes steel coils and ships the processed steel to a variety of users in automotive, appliance and other industries; Southern Illinois Transfer Company (SITCO), which operates the river terminal; and Kaskaskia Shipyard, which builds towboats in the SITCO Facility. ***Exhibit 4-1*** is an aerial view of KRPD#2. Existing operations and activities occupy most of the developed acreage.

4.1. Gateway FS

In 2013, Gateway FS purchased approximately 17.7 acres of land from KRPD for construction of a modern and efficient fertilizer and seed distribution center. The bulk fertilizer storage building east of the entry road, shown in ***Exhibit 4-2***, opened for business in 2016. The new rectangular building includes bins for segregating fertilizer products. The dome structures shown in the background of Exhibit 4-2 were the original fertilizer storage structures leased by Gateway from KRPD in 2000. Various elements of the office, scales and other distribution facilities in the complex were completed and opened for business in 2017 and 2018.

Most relevant to barge transportation, dry bulk fertilizer arrives by barge and is conveyed to storage via conveyor. ***Exhibit 4-3*** shows the hopper and first shuttle conveyor which must be positioned under the overhead bridge crane. With reference to ***Exhibit 4-4***, the shuttle conveyor is used to transfer the dry bulk fertilizer to a fixed conveyor owned by SITCO, thence to a receiving hopper also owned by SITCO where three transfers are possible: (a) directly to trucks, (b) to the ground where it is reclaimed by front-end loader and moved into a storage dome, and (c) onto a conveyor owned by Gateway FS which moves the product into the new storage building. Inside the building, an operator controls a travelling tripper which diverts product from the conveyor belt into the specified storage bin, one of which is shown in

Exhibit 4-5. Diammonium phosphate (DAP), potash and ammonium sulfate (AMS) are the fertilizers typically stored in the bins.

Customer trucks are loaded with fertilizer for use on farms or transfer to other distribution facilities. Outside and adjacent to the fertilizer building, there are two truck loadout positions. At the north loadout position, trucks sit on the scale and are loaded with custom blended fertilizer. At the south position, trucks are loaded with single-product fertilizer. These trucks must first cross the scales to weigh-in empty, and then cross the scales again for a final weighing to measure the quantity of fertilizer loaded.

Trucks may also receive fertilizer in a direct-transfer mode near the intermediate transfer tower, or may be loaded with fertilizer from the domes using a front-end loader and portable conveyor. More detail on truck movements related to fertilizer is provided in Section 6-4 of this report. Heavy truck traffic is common in the fertilizer distribution area during the late winter, spring and sometimes early summer months.

Liquid fertilizer, urea ammonium nitrate (UAN), is distributed from a building west of the main entry road and within the Gateway FS complex. UAN commonly moves by barge on the inland waterway system. Gateway reports that its UAN supplier wants to sell the product only in 4-barge unit tows, with each 30,000 barrel liquid tank barge typically having dimensions of 297 feet long by 54 feet wide. The size of the barges compared to the size of the Jerry F. Costello Lock is an issue because the unit tow must be broken down to fit inside the lock chamber. The ability to purchase UAN in 10,000 barrel, 195-foot long by 35-foot wide, tank barges is an issue that Gateway FS purchasing officials may pursue. If the sourcing issue can be resolved, storage capacity for the UAN could be constructed, and that is addressed later in this report.

At this time, the UAN is barged to a facility on the Mississippi River and then trucked into KRPD#2 for storage prior to its sale and distribution by truck. Anhydrous ammonia, other specialty products and seed are also distributed from within the Gateway FS complex. The on-site Gateway FS office is located in this complex next to a set of truck scales.

4.2. The Material Works (TMW)

In 1959, Red Bud Industries was founded by Kenneth Voges. Red Bud Industries is now a premier provider of metals processing equipment and systems. In 1992, he founded The Material Works, Ltd., (TMW), which provides toll processing of flat rolled metals including slitting, blanking, cut-to-length, leveling and EPS processing for service centers and manufacturers in the central and southern US. Toll processing means that TMW does not own the metal but, rather, processes metal owned by others.

TMW also has a Technology Division which researches and develops new steel processing technologies that are used worldwide. Red Bud Industries and TMW operate as separate companies, but have a common heritage. TMW employs approximately 100 people at its KRPD#2 location, making a significant contribution to the economy of the area.

In a typical year, TMW reports it processes approximately 300,000 to 350,000 tons of metal, primarily steel. Steel coils arrive for processing via barge, rail and truck. Almost all processed metal leaves TMW by truck. Steel coils arriving by barge or by rail are offloaded using the overhead bridge crane, and generally moved into the building served by the crane where the metal is shuttled over to the eastern end of the TMW building using an interior rail shuttle. It can then be moved by TMW overhead bridge cranes to storage and thence through processing. When metal arrives by truck, the trucks generally back into the eastern end of the TMW building through truck doors on the northern face of the building at its northeast corner. Once inside the building, the TMW overhead bridge cranes move the metal into storage.

A few processed steel coils leave TMW via these same truck doors at the northeast corner of the building, but the majority of processed metal is loaded onto trucks which have backed into interior loading bays at the western end of the building. Top-pick products can be loaded using a TMW bridge crane, and palletized products can be loaded using heavy fork-lifts.

TMW operates 24 hours per day, six days per week, and is closed on Sundays. Peak truck traffic times are typically 5:00am to 9:00am and 4:00pm to 7:00pm. Due to truck traffic patterns addressed later in

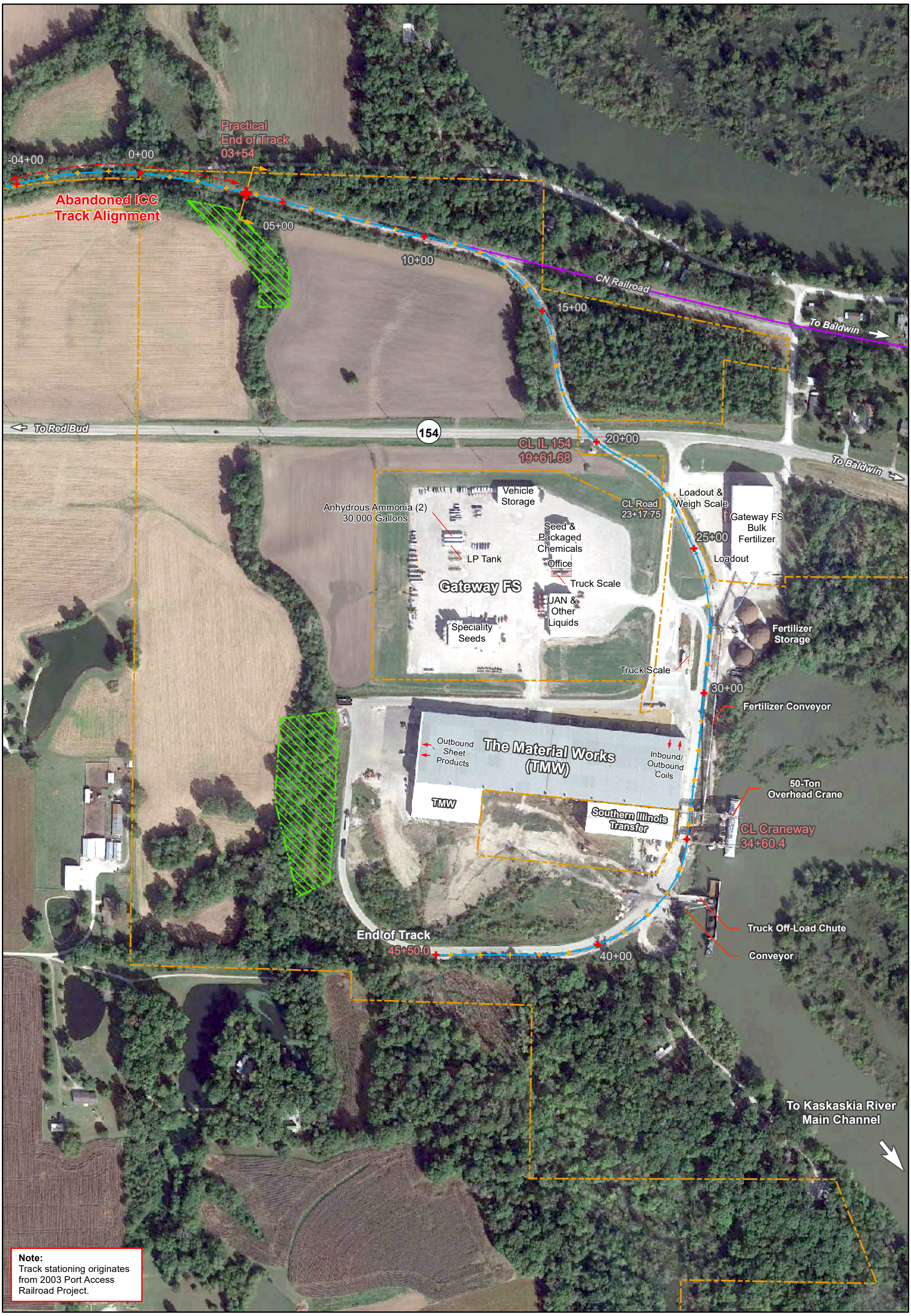
this report, conflicts can arise between steel trucks and other on-site traffic, hindering the efficiencies and capacities of both operations.

TMW representatives report the volume of steel shipped to KRPD#2 by barge is expected to increase over the next few years, and rail shipments are expected to increase as well. Increasing business volumes will logically result in increased truck traffic. It is important to note that TMW does not own any of the steel it processes. The owners of the metal make all transportation and logistics arrangements.

4.3.Southern Illinois Transfer Company (SITCO)

According to information provided by KRPD, SITCO has had the contract to operate KRPD#2 barge and rail facilities and equipment since 1996. SITCO owns approximately 3.2 acres just south of the TMW building at KRPD#2; Kaskaskia Shipyard operates a towboat construction operation in a portion of the transfer building.

Primary commodities handled by SITCO currently include steel, fertilizer, fly ash, scrubber stone, and other dry bulk commodities, and in the recent past have also included frac sand and gypsum. Some of the dry bulk products handled by SITCO are direct truck-to-barge transloads. On transload days, this means there is often a stream of duty-cycle truckers bringing loads into KRPD#2 and dumping directly into barges from the bulk dock, or using the adjacent truck dump pit from which materials are moved by conveyor onto barges. In some cases, when the bulk dock is already busy, materials are dumped onto the ground, reclaimed by a clam shell rigged on the overhead bridge crane, and thence loaded into barges. These intense traffic days are the result of successful business sales for the KRPD#2 facility, but can adversely impact traffic flows and capacities at other on-site operations, notably TMW and, to a lesser degree, Gateway FS.



Stationing - Rail
Stationing - Rail 500ft
CN Railroad
KRPD Rail Spur
Conservation Easement
KRPD-Owned Property

EXHIBIT 4-1:

KASKASKIA REGIONAL PORT DISTRICT

Major Facilities and Operations at KRPD #2

500 Feet

N

EXHIBIT 4-2:
KASKASKIA REGIONAL PORT DISTRICT
Gateway FS Facilities at KRPD#2

EXHIBIT 4-3:
KASKASKIA REGIONAL PORT DISTRICT
Conveyor Setup at Overhead Bridge Crane

EXHIBIT 4-4:
KASKASKIA REGIONAL PORT DISTRICT
Conveyor to Gateway FS

EXHIBIT 4-5:
KASKASKIA REGIONAL PORT DISTRICT
Gateway FS Dry Bulk Fertilizer Storage Building

5. Land Ownership and Physical Features

Land ownership around KRPD#2 is shown in ***Exhibit 5-1***. As of August 2019, much of the developable land owned by KRPD is used for current operations, is divided into relatively small pieces, or is below the 100-year flood elevation. Some land owned by KRPD south of the bulk dock is currently occupied by leaseholders. Gateway FS owns approximately 17.7 acres near the SR 154 truck entrance to KRPD#2. TMW leases its land parcel from KRPD under a long-term agreement. The overhead bridge crane superstructure is owned by KRPD, while the building originally constructed as part of the Stanley L. Reeble Dock Facility, along with a small tract of land south of the building, were purchased by SITCO from KRPD.

North of SR154, KRPD owns approximately 18 acres between the highway and the railroad tracks. According to Randolph County tax maps, adjacent lands of potential interest are owned by Cowell, Goetting and the Illinois Department of Natural Resources (IDNR), and others. Through a cooperative memorandum, KRPD can request property from IDNR for eventual use at no charge to KRPD. Lands transferred to KRPD from IDNR can only be leased to tenants; IDNR land cannot be sold to tenants.

As illustrated in ***Exhibit 5-2***, most of the land owned by KRPD above the 100-year flood elevation is used for current operations or is in small pieces. Exceptions are the land north of SR 154, and some land south of the bulk dock. There is a terraced rise of 20 to 30 feet within and just beyond the western edge of the KRPD property. Along with drainage features, this terrain poses challenges to future development which are certainly not insurmountable, but do add to the cost of development.

There are differences between the 100-year flood contour based on LIDAR topo information obtained from the Illinois Geospatial Data Clearinghouse for Randolph County (year 2012 data) and the FEMA defined floodplain as shown in ***Exhibit 5-3***.

Soils in and around KRPD#2 are generally classified as silt loams by the United States Department of Agriculture Natural Resources Conservation Service (NRCS) with slopes ranging from 0-2% to as steep as 35 to 60%. The characteristic silt loam soils map unit names for the area include Hickory, Okaw, Colp, Hurst, Millstadt, Redbud, Markland, Ruma, Petrolia, and Wakeland. Other notable soil map unit names

in the area include Orthents (typically land stripped for coal or areas where soils have been disturbed due to dredging) and Fluvaquents (areas of flood plain soils).

The degree and kind of soil limitations that affect shallow excavations, commercial buildings, and local roads and streets are shown in the USDA NRCS table below. A *severe* limitation indicates that one or more soil properties or site features area may be so unfavorable or difficult to overcome that a major increase in construction effort, special design, or intensive maintenance is required. A *moderate* limitation indicates that soil properties and site features are unfavorable for the specified use, but the limitations can be overcome or minimized by special planning and design.

Building Site Development Restrictions

Soil name and map Symbol	Shallow Excavations	Small Commercial Buildings	Local Roads and Streets
Hickory – 8F2	Severe: Slope	Severe: Slope	Severe: Low Strength & Slope
Okaw – 84A	Severe: Wetness, Floods	Severe: Wetness, floods, shrink-swell	Severe: wetness, floods
Colp – 122B			
Hurst – 338	Severe: Wetness	Severe: Shrink-swell, floods, low strength	Severe: Shrink-swell, frost action, low strength
Millstadt – 423a	Not rated	Not rated	Not rated
Red Bud – 437 B & D	Not rated	Not rated	Not rated
Markland – 467D2	Not rated	Not rated	Not rated
Ruma – 491C2	Not rated	Not rated	Not rated
Petrolia – 1288L	Not rated	Not rated	Not rated
Wakeland -3333A	Severe: Wetness, Floods	Severe: Wetness, Floods	Severe: Floods, frost action
Orthents 802 B & D	Moderate: Large Stones	Moderate: Slope, Large Stones	Severe: Frost action, large stones
Fluvaquents – 3646A	Not rated	Not rated	Not rated

Source: USDA NRCS and shown on ***Exhibit 5-4*** – Soils Information for KRDP #2.

Plans from construction of the Stanley L. Reeble dock facility as well as geotechnical reports for construction of the Southern Illinois Transit Building and repair of the Stanly L. Reeble dock slope stability failure have been obtained to supplement the United Stated Department of Agriculture soils data.

According to a geotechnical report from 1998 for the construction of Transit Building #2 (now the SITCO building), geotechnical bores were driven to a depth of fifteen (15) feet around the perimeter of the facility and found the soil profile to consist of six inches of topsoil overlying a generally uniform brown mottled gray to gray mottled brown silty clay to clayey silt to the bore depth of fifteen (15) feet. The silty clay encountered in the bores was stiff with an unconfined compressive strength ranging from 0.6 to 4.9 tons per square foot (tsf) with an aveage of 1.9 tsf. The clayey silt was found to have an unconfined compressive strength of 0.5 to 3.2 tsf averaging 1.3 tsf. Groundwater was not encountered at the 15 foot depth.

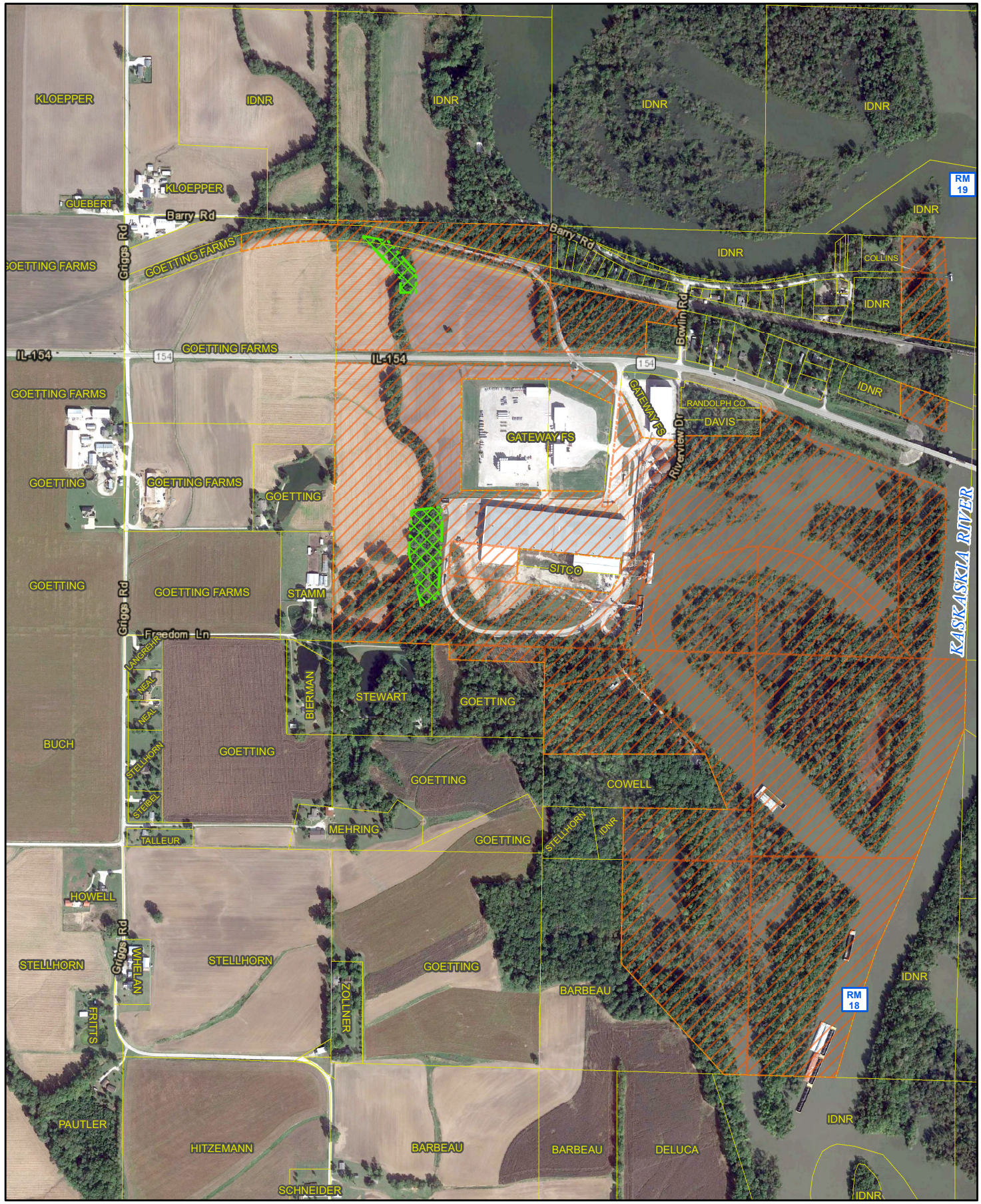
The 1994 geotechnical study that addressed a landslide at the Stanley L. Reeble dock facility describes five bores, with one bore drilled to refusal on gray limestone bedrock at a depth of 82.5 feet or an approximate elevation of 316. A boring drilled near the dock in 1984 by Burlington encountered bedrock at elevation 318. The locations of these bore are shown on the bottom of Exhibit 5-4 - Soils Information for KRDP #2.

Records contained in KRPD files indicate the soil stratigraphy consists of a unit of cohesive deposits overlying a unit of granular soils, extending to a depth of approximately 50 feet. The unit of granular soils contained a layer of cohesive soils and was generally underlain by silty clays or clayey silts, extending down to bedrock at approximately 80 feet. The cohesive upper unit consisted of silty clay and clay with silt with an occasional layer of clayey silt. This unit ranged in thickness from approximately 11 to 22 feet and extended to elevations ranging approximately 377 to 371 feet. The consistency of the unit was soft to stiff, with unconfined compressive strength values generally ranging from 0.25 to 1.75 tsf. Granular deposits were encountered beneath the upper cohesive unit in all five of the borings. This unit extended down to Elevation 352 to 339 feet, but genreally no deeper than elevation 345 feet. This unit typically consisted of clay or silty fine sand with an intermediate cohesive layer usually made up of clay with silt, and silty clay. The cohesive unit ranged in thickness from five to ten feet and was generally overlain by 8 to 10 feet of sand and underlain by 5 to 15 feet of sand. The cohesive unit was geneally soft to medium consistency with unconfined compressive strengths of 0.35 to 1.0 tsf. Underlying the sand unit are stiff interlayered silty clays, clayey silts, and clays that generally extended to a depth of approximately 82 feet (Elevation 316). The consistency was medium to hard with

unconfined compressive strengths ranging from 0.75 to 3.0 tsf. Groundwater was encountered in these borings with depths ranging from 11 to 28 feet during drilling.

Plans for construction of the Stanley L. Reeble Dock Facility show the bottom of the sheet pile cells encapsulating support the superstrucuture for the crane were extended to elevation 336 and piles supporting the concrete foundation were driven to elevation 345. This would place the cells approximately eighteen (18) feet above bedrock.

Other building site development restrictions are shown on ***Exhibit 5-5*** – Environmentally Sensitive Area at KRPD #2. These include wetlands of various types and the previously recorded Conservation Easements and Riparian Corridor. While this map does not depict all of the potential environmentally sensitive areas, it is a good starting point. Additional Wetland Delineation will be required prior to starting any building activities.

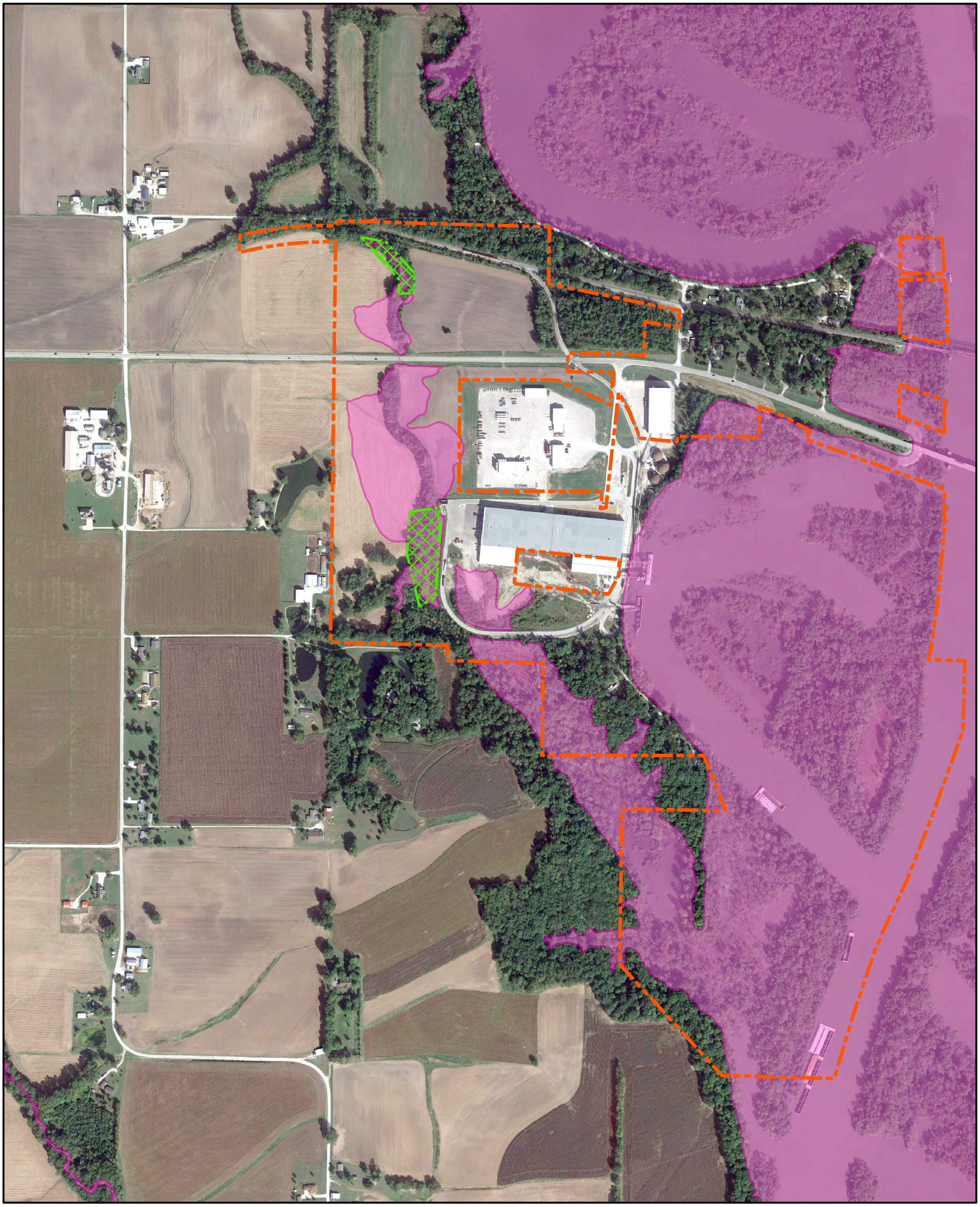


Conservation Easement
KRPD-Owned Property
Non-KRPD Property

EXHIBIT 5-1:
KASKASKIA REGIONAL PORT DISTRICT
Relevant Land Ownership at KRPD #2

1,000 Feet

N



Conservation Easement

KRPD-Owned Property

LiDAR-Derived Flood Plain

EXHIBIT 5-2:

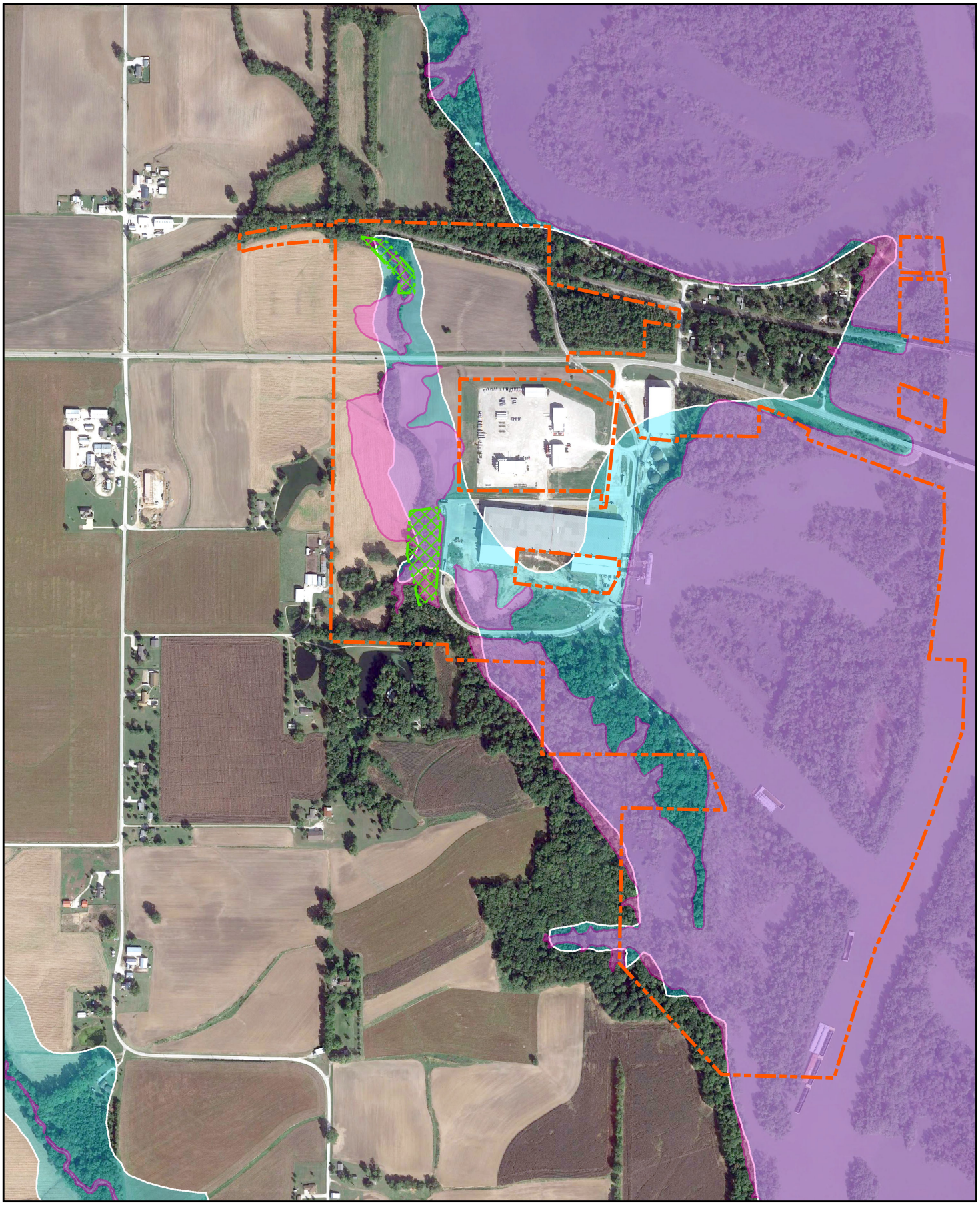
KASKASKIA REGIONAL PORT DISTRICT

LiDAR 100-Year Flood Contour at KRPD #2

Based on 392' Flood Elevation

1,000 Feet

N

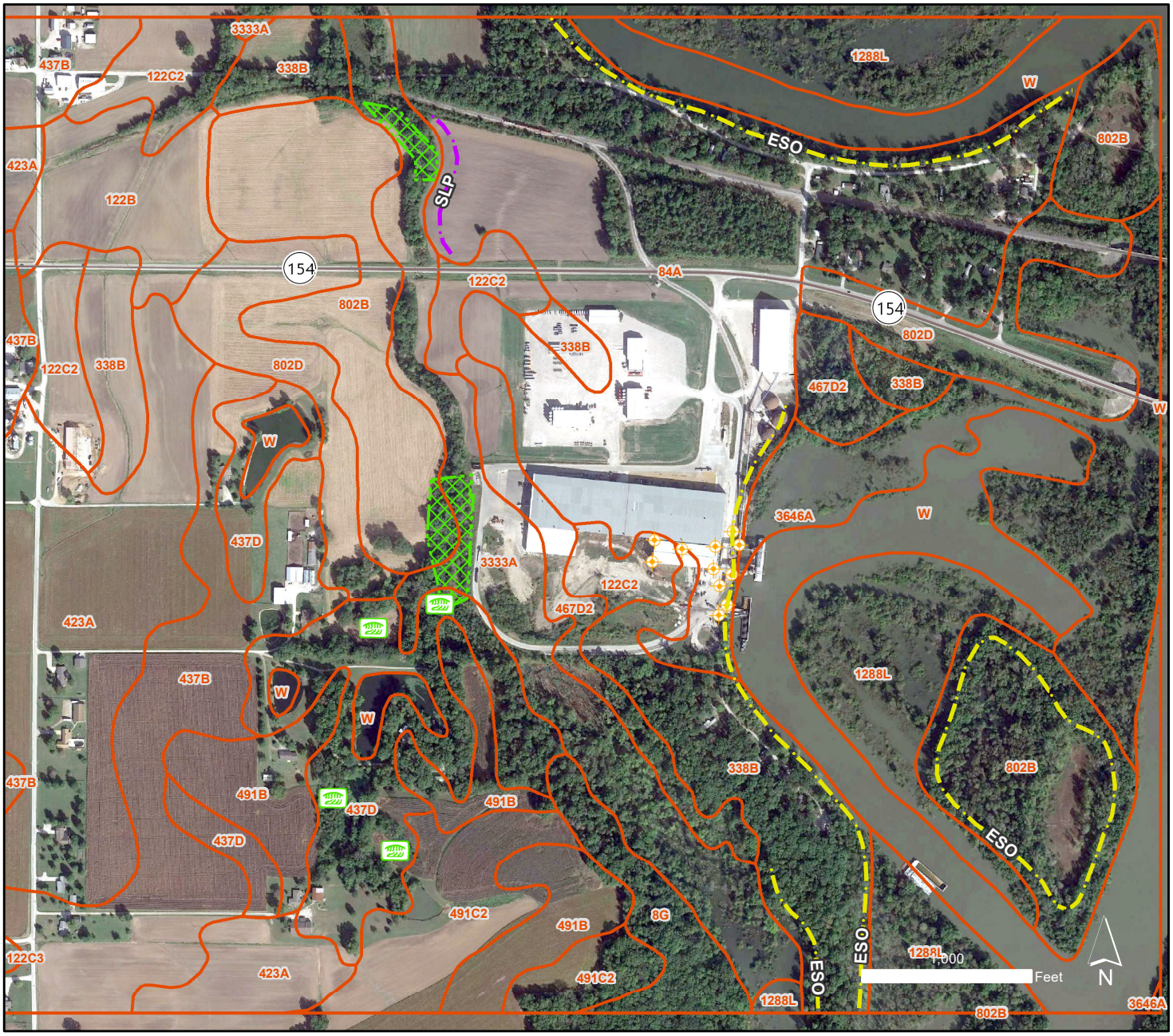


KRPD-Owned Property
Conservation Easement
LiDAR-Derived Flood Plain
FEMA-Derived Flood Plain (2008)

EXHIBIT 5-3:
KASKASKIA REGIONAL PORT DISTRICT
Comparison of FEMA Floodplain Mapping and LiDAR 100-Year Flood Contour

1,000
Feet

N



Severely Eroded Spot
Escarpment, Non-Bedrock
Short, Steep Slope
Record Soil Bore Locations
NRCS Soil Types
Conservation Easement

EXHIBIT 5-4:

KASKASKIA REGIONAL PORT DISTRICT
Soils Information for KRPD #2

Source:*NRCS Hydrologic Soil Types*

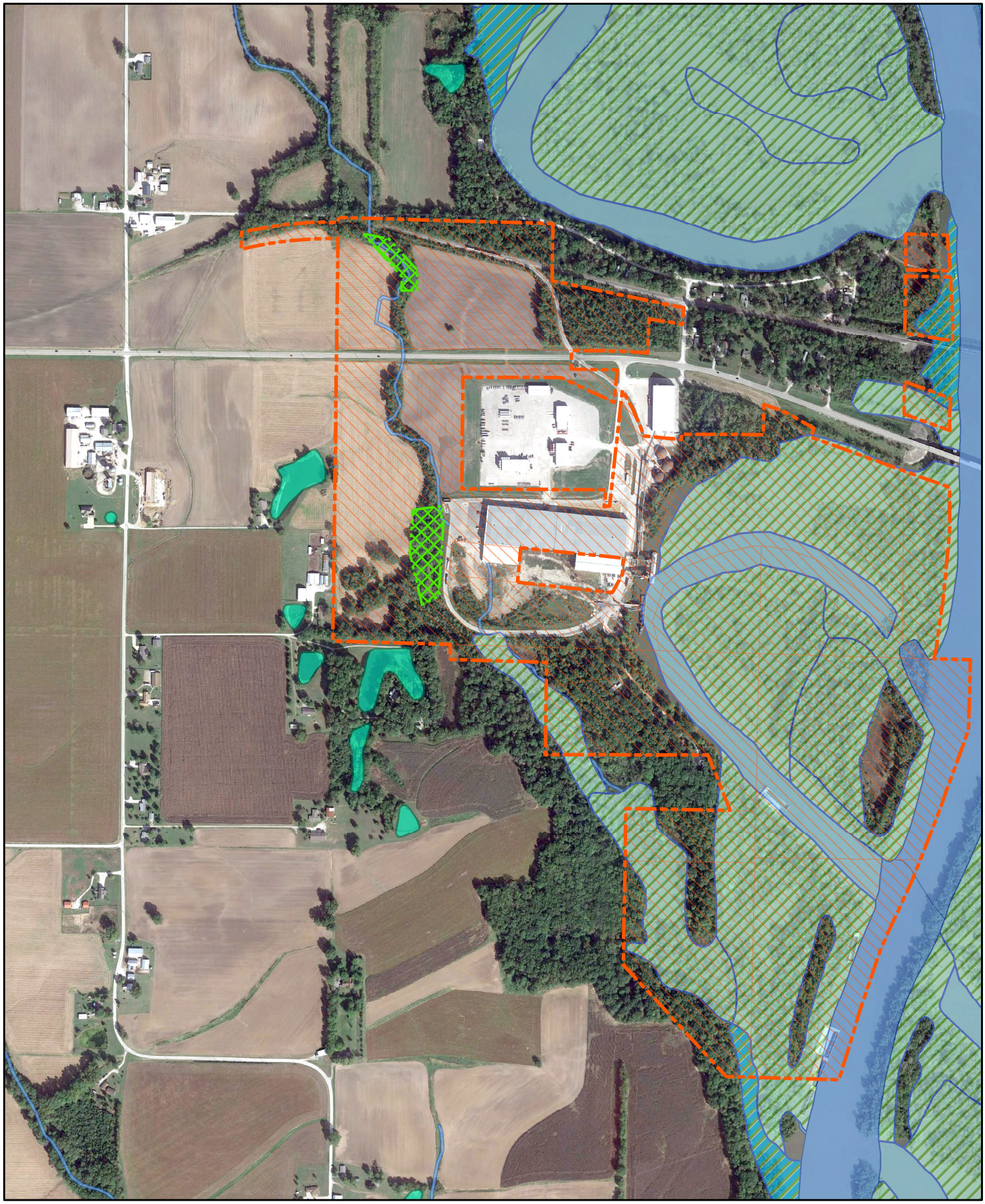


EXHIBIT 5-5:

KASKASKIA REGIONAL PORT DISTRICT

Environmentally Sensitive Areas at KRPD #2

6. On-site Barge, Rail, Truck and Crane Operations

As with many river terminals, external factors drive the timing of product movements. There are periods of intense activity with a variety of products and activities which can cause traffic congestion and reduce efficiencies for all operations. Barge, rail, truck and bridge crane operations are described in the following sections. Understanding traffic patterns is an important step in identifying causes for the periodic congestion and thence to the formulation of alternatives for improvements to enhance efficiencies. The overhead bridge crane moves materials across both rail tracks and the internal roadway, so crane operations must be considered as well as barge, rail and truck.

6.1. Barge Access and Operations

Barges are pushed from the main Kaskaskia River channel into the KRPD#2 harbor area. The harbor and its approach were formed when a bendway cutoff was constructed to straighten the main river channel. As shown in ***Exhibit 6-1***, SITCO delivers barges destined for KRPD#2 directly to the dock, to a nearby fleet in the cutoff, or to a nearby fleet on the main channel near KRM 18.

Once at either the overhead bridge crane or the bulk dock, barges are moved during the loading or unloading process with a harbor boat or by winches. The distance between the two docks is sufficient and no conflicts with barge movements at the docks has been reported.

Periodic dredging is required to maintain access. One location requiring dredging is at the junction of the harbor entry and the main channel near KRM 18. Other areas within the harbor and near the mooring positions require periodic attention. USACE has the authority to dredge the main channel and access to the mooring positions in the harbor, but not at the mooring positions. The US Congress provides funding for the national USACE dredging program in an annual appropriation, but national needs usually exceed the budget provided. Hence, KRPD and SITCO have had to provide dredging near KRPD#2 in recent years when USACE was not able to dredge.

6.2. Rail Access and Operations

The CN provides rail service to KRPD#2 once or twice a week from its Centralia yard depending on demand and on CN equipment and personnel availability. As shown in ***Exhibit 6-2***, rail cars are delivered to the extension of the old CN track, now owned by KRPD, north of SR154. The string of cars must clear the switch point labeled on Exhibit 6-2, then are shoved onto the KRPD#2 spur and left between the CN track and SR154. The CN power then reverses through the switch, escapes and returns to Centralia. A switch engine owned by KRPD and operated by SITCO crosses SR154 and pulls the rail cars back onto KRPD#2 property. The most frequent rail cargo at this time is coiled steel. The coil cars are positioned and indexed under the overhead bridge crane for unloading. After unloading, the empty rail cars are shoved back across SR154, through the KRPD spur, through the switch, and left on the KRPD track aligned with the CN track for pick up by CN. Capacity is limited to approximately ten rail cars (depending on rail car type and size) by the length of track between the clear point for SR154 right-of-way and the clear point of the switch at the CN track.

6.3. Truck Traffic Patterns and Operations

There are both inbound and outbound truck movements at KRPD#2. Some fertilizer and feed products are delivered to Gateway FS by truck. All retail fertilizer and seed sales depart KRPD#2 by truck. Significant volumes of steel coils arrive at TMW by truck, and virtually all processed metal departs by truck. Other bulk business typically involves materials arriving by truck to be transloaded directly to barge. Market demand drives the timing for this diverse array of products and commodities. On days when multiple products are moving, significant traffic conflicts have been reported. The following paragraphs describe primary traffic patterns and related operations by commodity type.

Truck traffic to and from Gateway FS is shown in ***Exhibit 6-3***, and is mostly along and across the main access road. Trucks receiving single-product dry bulk fertilizer from the fertilizer building must enter the site from SR154, proceed along the entry road, turn left and scale in next to the fertilizer building, then loop back to the loading position, and finally proceed forward to scale out and depart KRPD#2. Trucks receiving blended dry bulk fertilizer enter the site, turn left just past the large fertilizer building and park on the truck scales where they can receive the load. Some traffic enters the site and turns right into the

Gateway FS complex where UAN, specialty fertilizers, seed, UAN and anhydrous ammonia is sold. All Gateway FS traffic exits along the main access road back to SR 154.

Inbound steel coils are received at the northeast corner of the TMW building as shown in ***Exhibit 6-4***. Some outbound processed coils are loaded at the northeast corner as well. Most trucks picking up processed metal, however, receive their loads inside the west end of the TMW building. Steel-haulers enter from SR 154 and travel along the main KRPD#2 access road. Rather than turning right just before the TMW building, these trucks usually travel along the roadway under the overhead bridge crane, turn right near the bulk dock and loop back to the west end of the TMW building where they must stop, reverse, turn and back into the west end of the building. After receiving their load, trucks exit the building, turn right and proceed the intersection with the main access road where they turn left and travel back to SR 154. Steel hauler trucks have been observed travelling at considerable speed on the road under the overhead bridge crane.

Dry bulk such as stone, fly ash, coal, frac sand, etc., is transloaded at the bulk dock. Trucks proceed from SR 154 along the main KRPD#2 entry road, and then take one of two paths to the bulk dock. Some bulk haulers turn right near the northeast corner of the TMW building, as shown in ***Exhibit 6-5***, loop around the west end of TMW and proceed on this loop road to the bulk dock area. Other bulk haulers have been observed to proceed on the roadway directly beneath the bridge crane to arrive at the bulk dock.

Once at the bulk dock, details of operations vary, depending on river levels, commodities being transloaded and other factors. There are two main operating scenarios. Trucks may arrive near the dock, back out onto the dock structure and dump onto a loading chute where the materials fall directly into the barge. Alternatively, trucks may use the small loop road at the dock to turn around and cross the truck dump pit. Materials in the pit are moved by conveyor to a loading point adjacent to and just downstream from the dock. After discharging their load, the empty trucks proceed back to SR 154 via one of the two routes described above.

6.4. Overhead Bridge Crane Operations

When the bridge crane is moving objects across the road, there is potential for a conflict between the bridge crane object and any traffic passing beneath the craneway. Steel coils are moved from barges into the transfer building adjacent to TMW. The towboat construction process involves fabrication of boat components within the building, and then moving these large fabrications with the bridge crane to the water for final fabrication and assembly. Also, when two different outbound products are moved at the same time, the road under the bridge crane must be closed for extended periods of time, creating congestion and confusion for truck traffic.

KRPD-Owned Property

EXHIBIT 6-1:

KASKASKIA REGIONAL PORT DISTRICT

Typical Barge Operations at KRPD #2

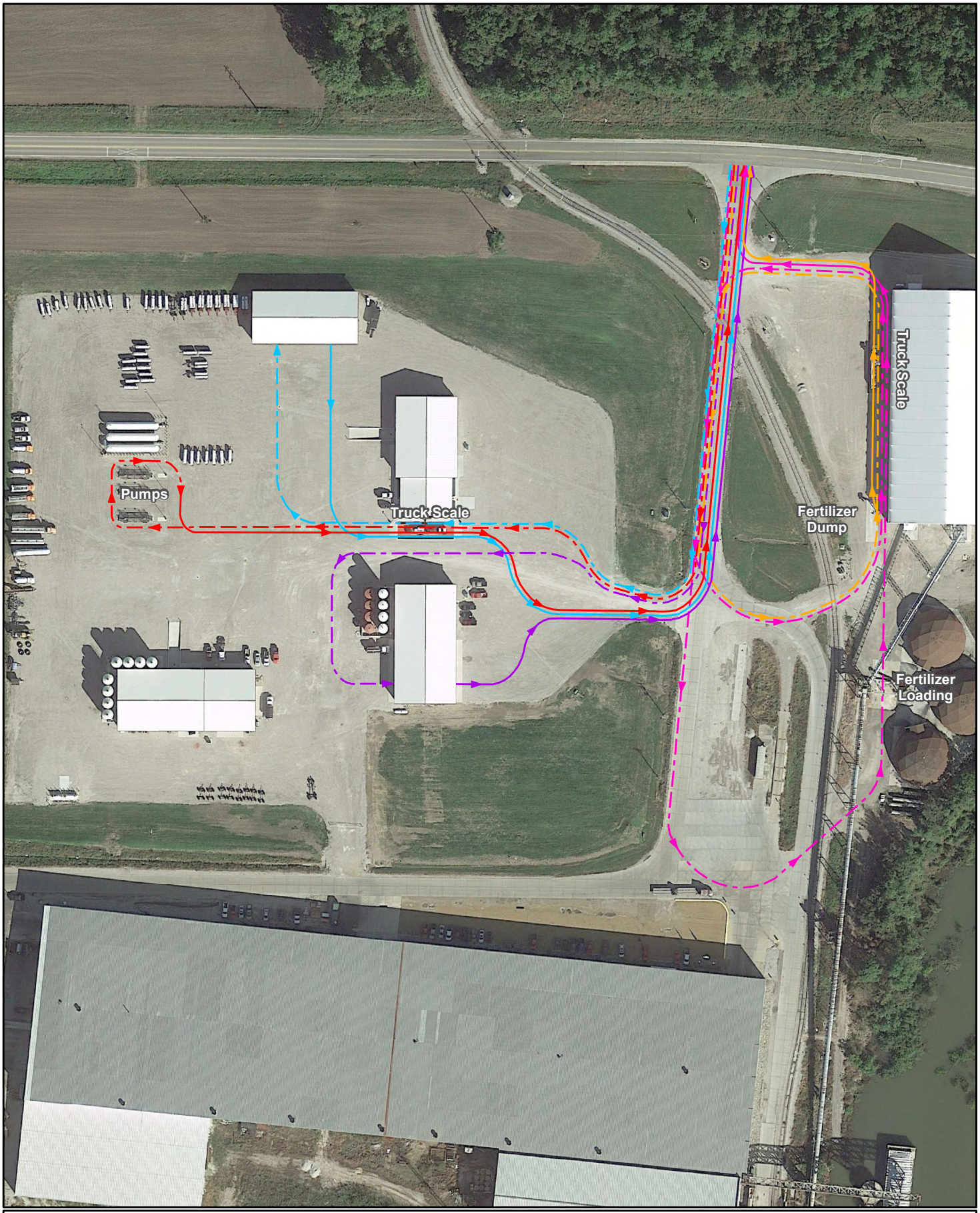
1,000 Feet

N

EXHIBIT 6-2:
KASKASKIA REGIONAL PORT DISTRICT
Typical Rail Operations at KRPD #2
North of SR 154

500 Feet

N



Traffic Direction

- Inbound - Fertilizer Pickup
- Outbound - Fertilizer Pickup
- Inbound - Fertilizer Dump
- Outbound - Fertilizer Dump
- Inbound - Drive-Through
- Outbound - Drive-Through
- Inbound - Pumps
- Outbound - Pumps
- Inbound - Dropoff/Pickup
- Outbound - Dropoff/Pickup

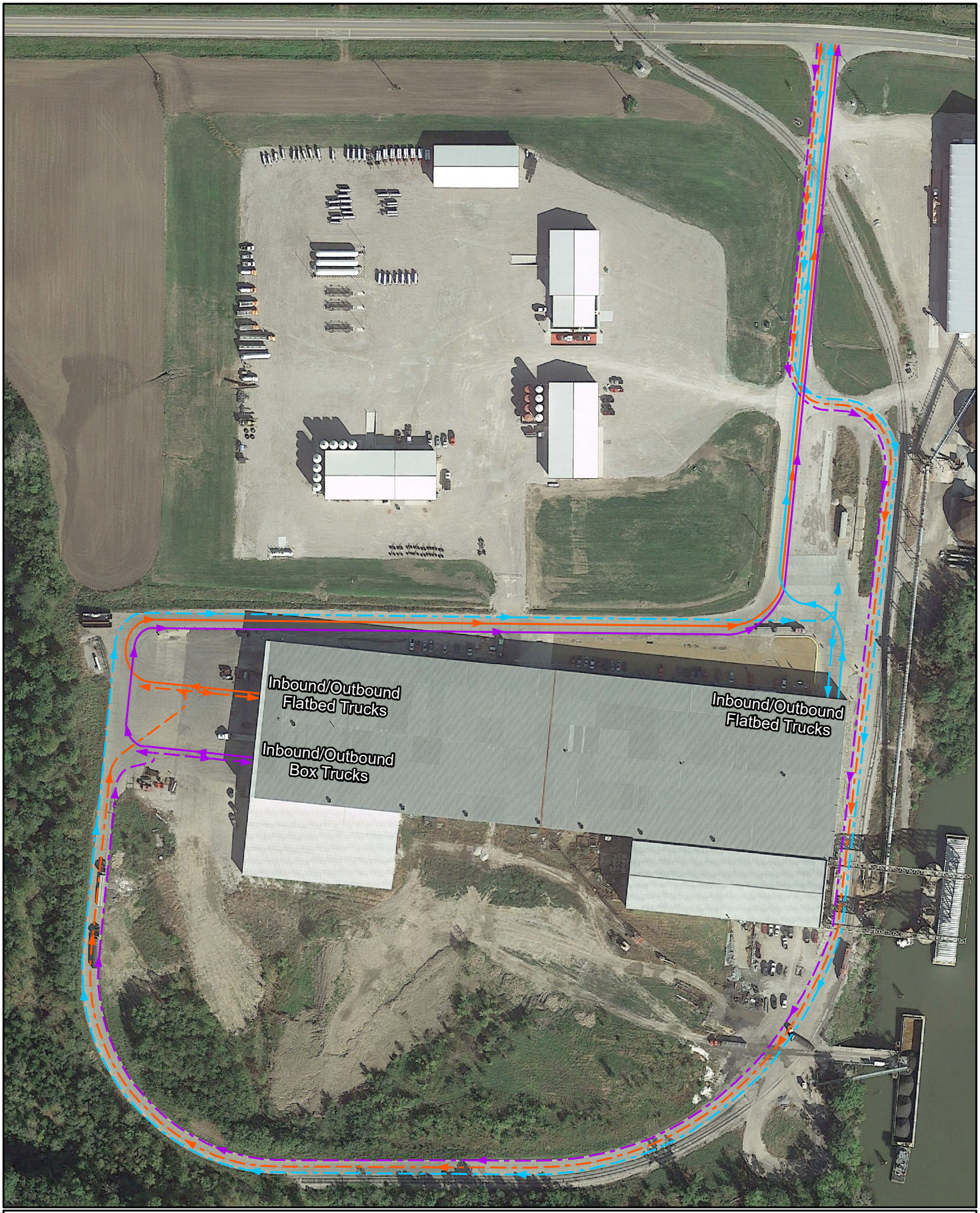
EXHIBIT 6-3:

KASKASKIA REGIONAL PORT DISTRICT

Typical Truck Operations - Gateway FS

200 Feet

N



Traffic Direction

- Inbound - Box Truck
- Oubound - Box Truck
- Inbound - Flatbed Truck
- Outbound - Flatbed Truck
- Inbound - Flatbed Truck
- Outbound - Flatbed Truck

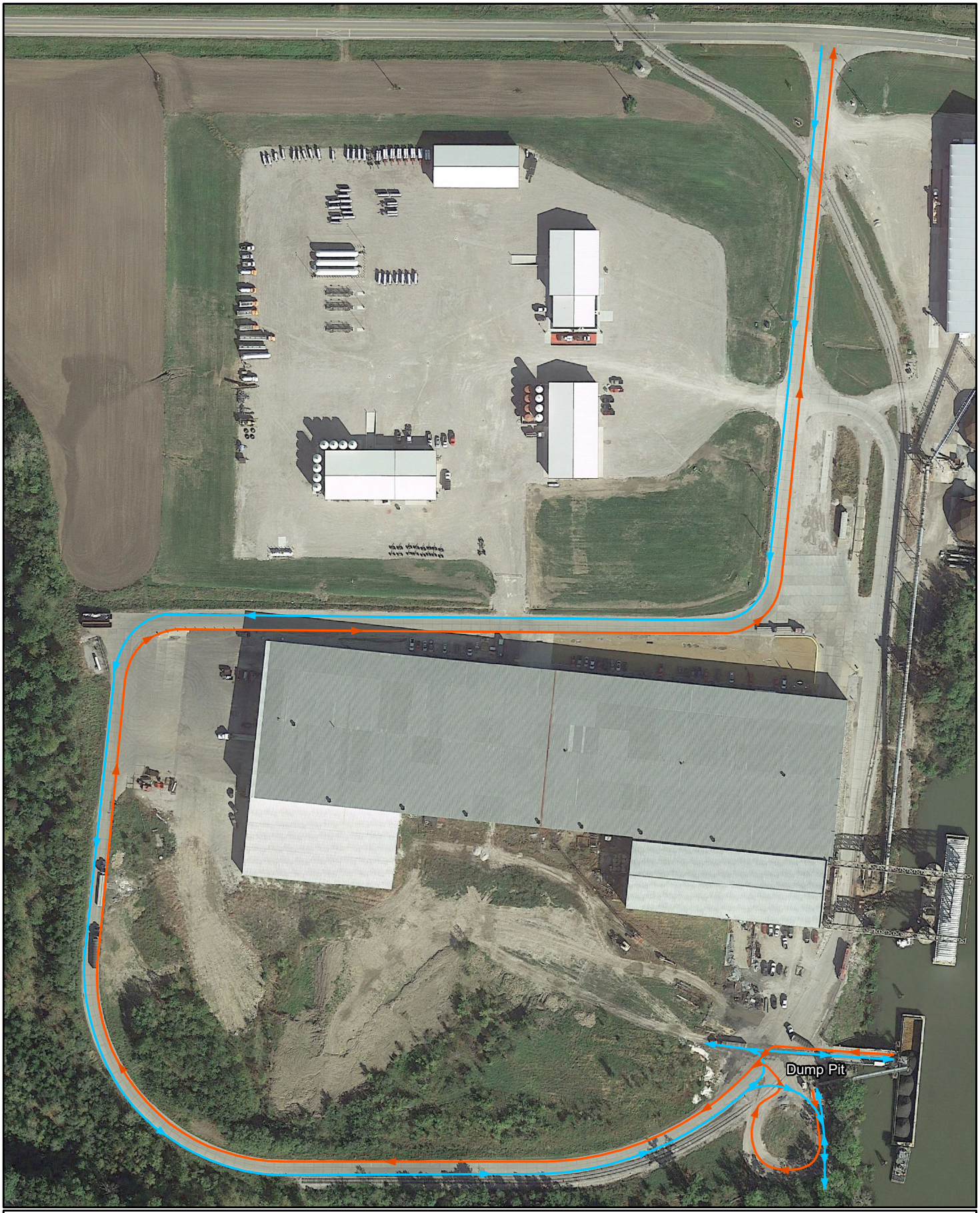
EXHIBIT 6-4:

KASKASKIA REGIONAL PORT DISTRICT

Typical Truck Operations - TMW

250 Feet

N



Traffic Direction

- Inbound
- Outbound

EXHIBIT 6-5:

KASKASKIA REGIONAL PORT DISTRICT

Typical Truck Operations to Bulk Dock

250 Feet

N

7. Assessment of Relevant Waterborne Commerce Trends and Data

Understanding trends in waterborne commerce traffic data is one of several tools providing context for assessing potential for waterborne commerce at KRPD#2. Waterborne commerce data is presented in this section for:

- the US inland waterway system,
- the Upper Mississippi,
- the Upper Mississippi near KRPD,
- the Kaskaskia River,
- KRPD terminals, and
- KRPD#2.

For easy reference, ***Exhibit 7-1*** is a map of the US inland waterway system.

USACE collects and reports waterborne commerce data in the US. ***Exhibit 7-2*** shows commodities moving on the US inland waterways in 2017, the most recent year available at the time of writing this report. Significant commodity groups include:

- 28% Petroleum and Petroleum Products
- 20% Coal
- 18% Crude Materials
- 18% Food and Farm Products
- 10% Chemicals
- 6% Manufactured Goods

The decline in the use of coal for power generation caused a decline in waterborne coal shipments between 2014 and 2017, and this caused an overall decline in barge traffic as shown in ***Exhibit 7-3***. This decline especially impacted volumes of barge traffic on the Ohio River, but did not have as much impact on Upper Mississippi River traffic.

With reference to ***Exhibit 7-4***, the Upper Mississippi includes the run of river from Mile zero at the confluence with the Ohio River to the headwaters at Upper Mississippi River (UMR) mile 866. The commodity mix on the Upper Mississippi, ***Exhibit 7-5***, is dominated by the agricultural products, categorized in USACE reporting as “Food and Farm”:

- 48% Food and Farm
- 14% Crude Materials

- 12% Chemicals
- 9% Petroleum and Petroleum Products
- 9% Coal
- 8% Primary Manufactured Goods

Subsequently, the trend line in ***Exhibit 7-6*** is steady, with a slight dip in 2013 due to drought and flooding, and a quick recovery the following year.

It is helpful to understand the direction barge traffic is moving, with upbound being towards St. Paul, and downbound being toward New Orleans, as well as where commodities are being loaded and unloaded. With reference to ***Exhibit 7-7***, "inbound" means barges are being unloaded, "outbound" means barges are being loaded, "through" means the cargo is moving on the Upper Miss but was neither loaded or unloaded on the Upper Miss (cargoes to/from the Kaskaskia River, Missouri River or Illinois River, for example), and "Intra" meaning the cargo was both loaded and unloaded on the Upper Miss. Note that 31% of Upper Miss traffic is outbound downbound Food and Farm, and 17% is through Food and farm. The largest upbound category is Chemicals.

Data for UMR 0 to 195, the segment of the Upper Miss between the confluence with the Ohio River and the Missouri River, ***Exhibit 7-8***, has also been examined. The overall commodity mix in this river segment, ***Exhibit 7-9***, is relatively consistent with the Upper Miss:

- 50% Food and Farm
- 13% Crude Materials
- 12% Chemicals
- 9% Petroleum and Petroleum Products
- 8% Coal
- 8% Manufactured Goods

The trend line in volumes of barge traffic on this river segment, ***Exhibit 7-10***, is also consistent with the overall Upper Miss trend line. In ***Exhibit 7-11***, note that 72% of the Food and Farm category moving through the UMR 0-195 segment is downbound through cargo, and 27% (over 15 million tons) was loaded onto barges within the segment and was moved downbound.

Within this frame of reference, waterborne commerce on the Kaskaskia River, ***Exhibit 7-12***, is of interest, with ***Exhibit 7-13*** showing data for the year 2013, the most recent year available from USACE.

Category definitions reported are slightly different from those used on the Mississippi, but are more definitive. The predominant categories are reported to be:

- 50% Limestone
- 21% Corn
- 14% Soybeans
- 9% Slag
- 3% Fertilizers
- 1% Wheat
- 1% Coal and Lignite
- 1% Steel and Steel Products

In summary, 95% of waterborne cargoes on the Kaskaskia River in 2016 were related to electrical power production (59% - limestone and slag) and agricultural production (36% - corn, soybeans and wheat).

Tonnage on the Kaskaskia River is rising, as shown in ***Exhibit 7-14***. USACE reports predominant cargoes, ***Exhibit 7-15***, are inbound upbound limestone and outbound downbound grain.

KRPD collects data on volumes and types of cargoes moving though its terminals. Tonnage trends for KRPD river terminals, as reported by KRPD, are shown in ***Exhibit 7-16***. The patterns of activity reported by KRPD are consistent with observations from USACE data. The highest tonnages are shown to be at KRPD#1 (limestone) and Evansville (grain). Since 2014, the terminal with the most significant increase in tonnage is KRPD#2. The KRPD data by terminal is presented in bar chart format in ***Exhibit 7-17***.

Drilling down a bit deeper into the data, the 2018 commodity mix at KRPD#2 is shown in ***Exhibit 7-18***. Commodity category definitions shown below are as reported by KRPD:

- 43% Fly Ash (outbound)
- 23% Misc Coal and Grain (outbound)
- 14% Fertilizer (inbound)
- 13% Steel (inbound)
- 5% Frac Sand (outbound)
- 2% Gypsum (outbound)

Two major on-site tenants, TMW and Gateway FS, receive virtually all of the inbound cargoes. Inbound cargoes are offloaded from barges using the overhead bridge crane. The outbound cargoes predominantly use the bulk dock for direct transload from truck to barge. In special circumstances, the

bridge crane rigged with its clamshell has been used to load barges with material that has been staged on the ground under the craneway.

Trends in commodity types handled at KRPD#2 are shown in ***Exhibit 7-19***. Scrap steel, stone and gypsum were loaded only in one or two years, so ***Exhibit 7-20*** is a less cluttered version of the trend line chart by commodity type. Fertilizer throughput increased after the new storage and distribution building was constructed. Steel volumes in 2017 and 2018 are quite encouraging, and are multiples of annual volumes of steel received by barge from 2013 to 2016. Further, the shipments of steel coils to KRPD#2 by barge and possibly by rail are expected to increase over the next few years due to work obtained by TMW. ***Exhibits 7-21*** and ***7-22*** show both barge and rail volumes of steel received within the overall mix of major commodity groups shipped to and from KRPD#2. In addition to supporting local jobs, steel shipments to TMW are very important to KRPD#2. The recent rise in steel volumes by both barge and rail can be easily seen in ***Exhibit 7-23***.

In summary, considering national, regional and local trends in waterborne commerce, some important observations include:

- The decline in national waterborne commerce during the past few years is primarily due to declining use of coal to generate electrical power in the US.
- Upper Mississippi River tonnage data shows a steady trend because the predominant cargo is grain rather than coal.
- On the Upper Mississippi, the predominant cargo is downbound grain, and the most significant upbound cargo is chemicals.
- Tonnage volumes are important because ton-miles of cargo is one metric USACE uses to allocate funds for operations and maintenance of individual river systems within the inland waterway system.
- Kaskaskia River tonnage is largely supported by two overarching commodity groups: power plant input materials and agricultural products. Steel and steel products, however, are critical for supporting employers which have significant impact on the economic health of the region.
- KRPD#2 on-site barge users provide great support to the regional economy.
- Gateway FS helps keep fertilizer prices reasonable, and thus farming more profitable, by using waterways transportation to receive its fertilizers.
- TMW provides a large number of family-wage jobs and is supported by barge and rail shipments of steel to KRPD#2.
- Outbound dry bulk cargo business is captured at KRPD#2 because it has the capability to efficiently transload from truck to barge, except on days when on-site traffic congestion hinders efficiencies.

The viability of Kaskaskia River navigation and improvements to the system are important for the long-term productivity of KRPD#2. Strategic recruitment and location of barge and rail users at or near KRPD#2 is important for sustained future growth.

EXHIBIT 7-1:
KASKASKIA REGIONAL PORT DISTRICT
The US Inland Waterway System

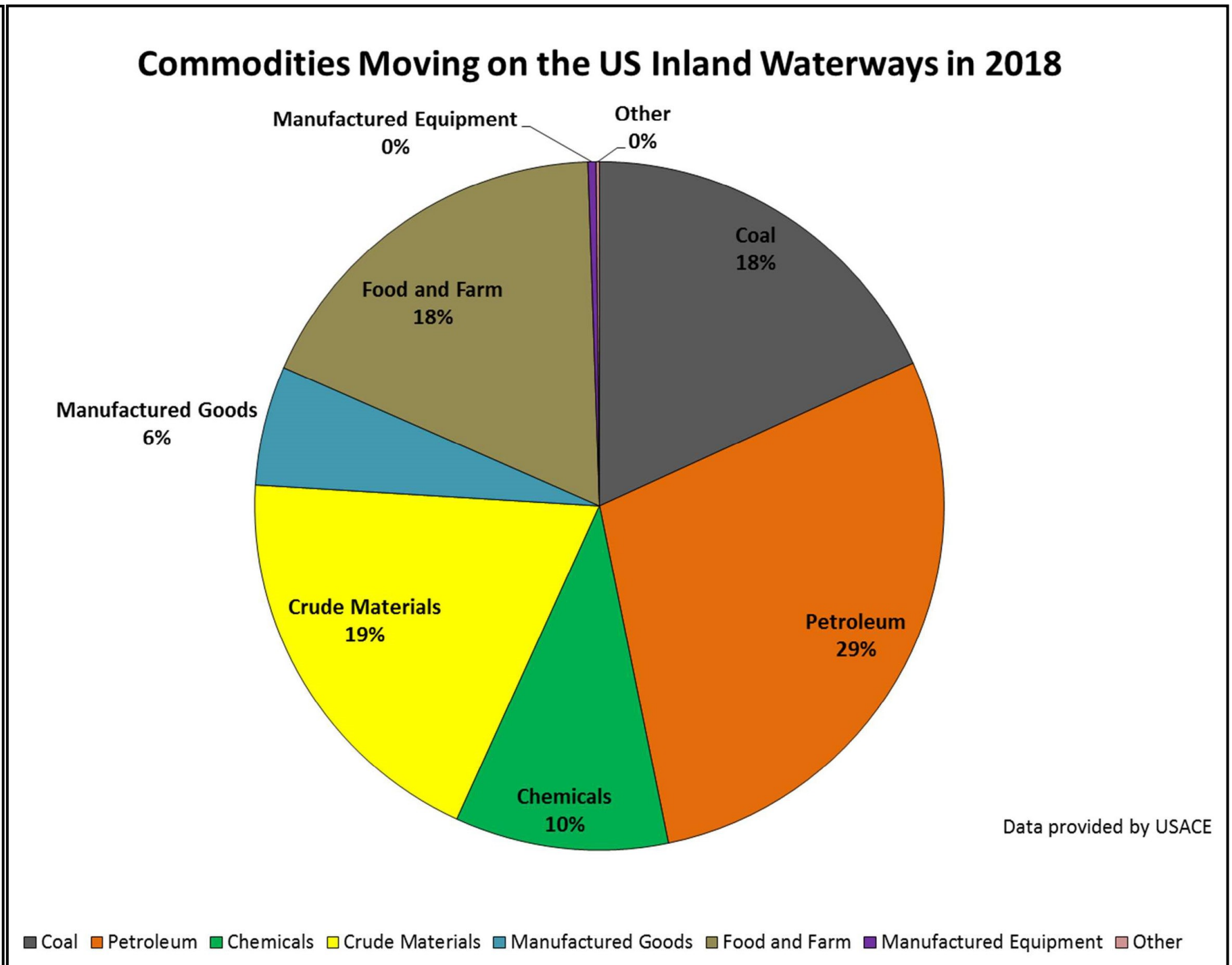
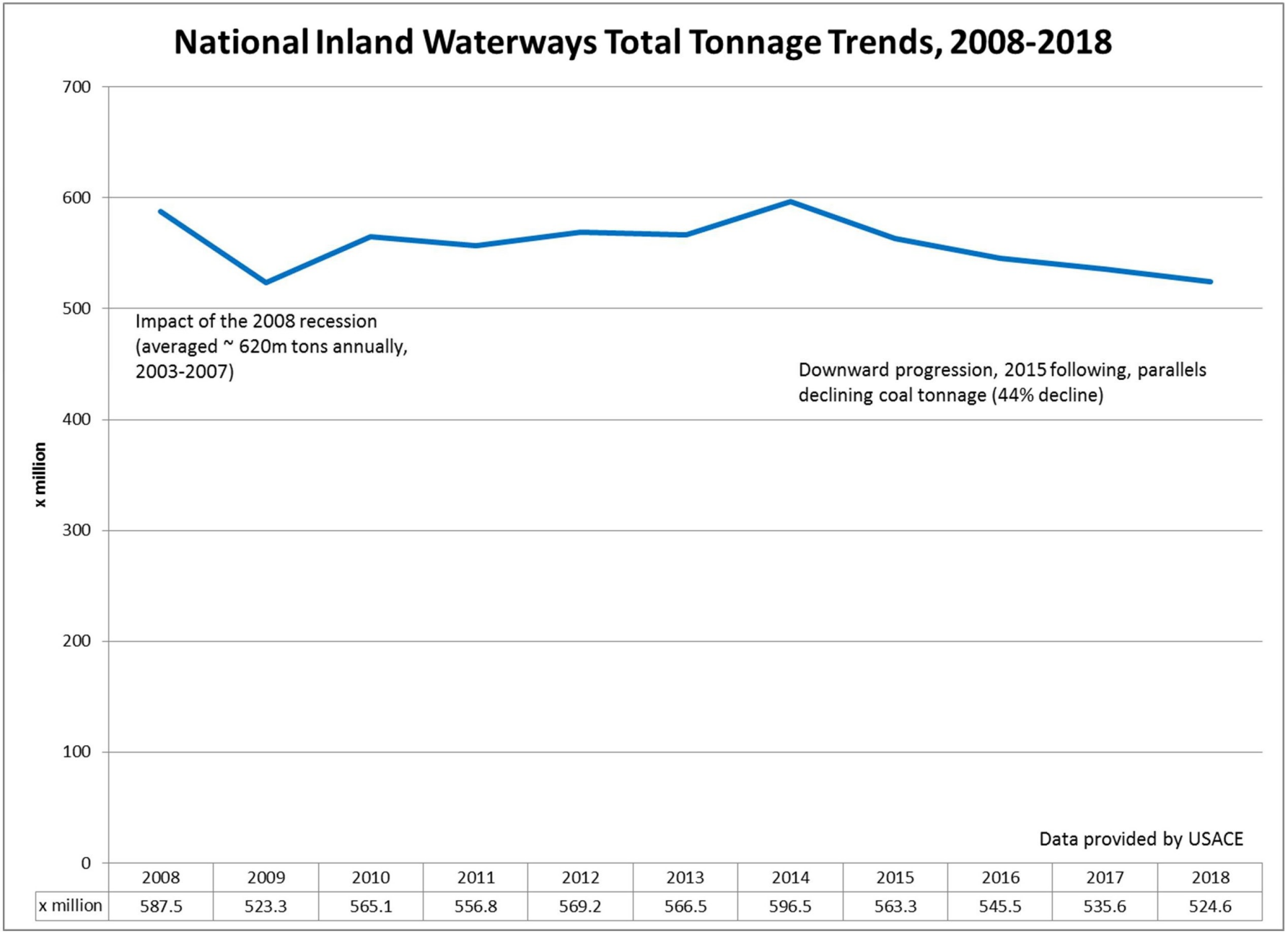


EXHIBIT 7-2:
KASKASKIA REGIONAL PORT DISTRICT
Commodities Moving on the US Inland Waterways in 2018

EXHIBIT 7-3:
KASKASKIA REGIONAL PORT DISTRICT
National Inland Waterways Total Tonnage Trends, 2008-2018



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
x million	587.5	523.3	565.1	556.8	569.2	566.5	596.5	563.3	545.5	535.6	524.6

EXHIBIT 7-4:
KASKASKIA REGIONAL PORT DISTRICT
Location of the Upper Mississippi River within the US Inland Waterway System

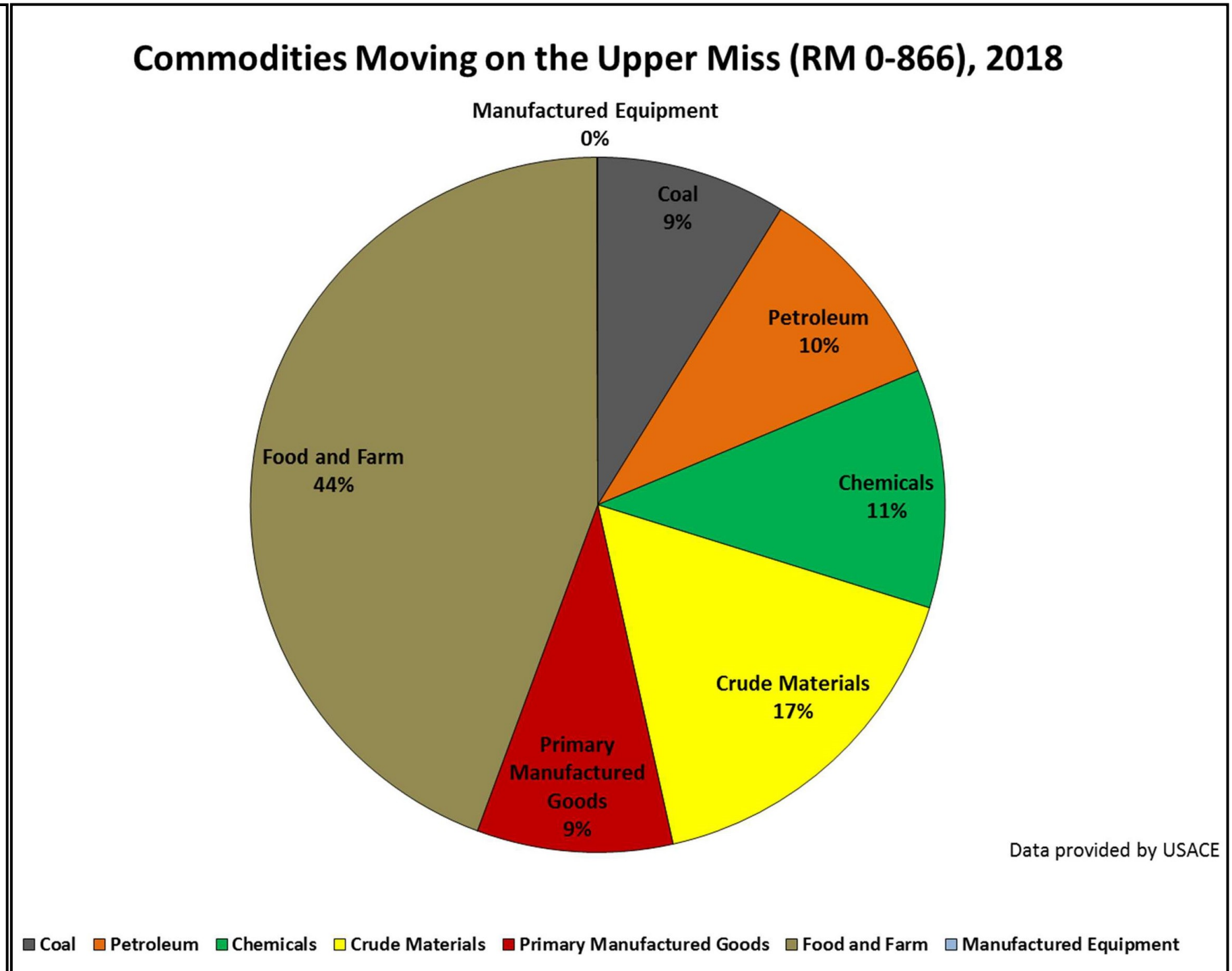
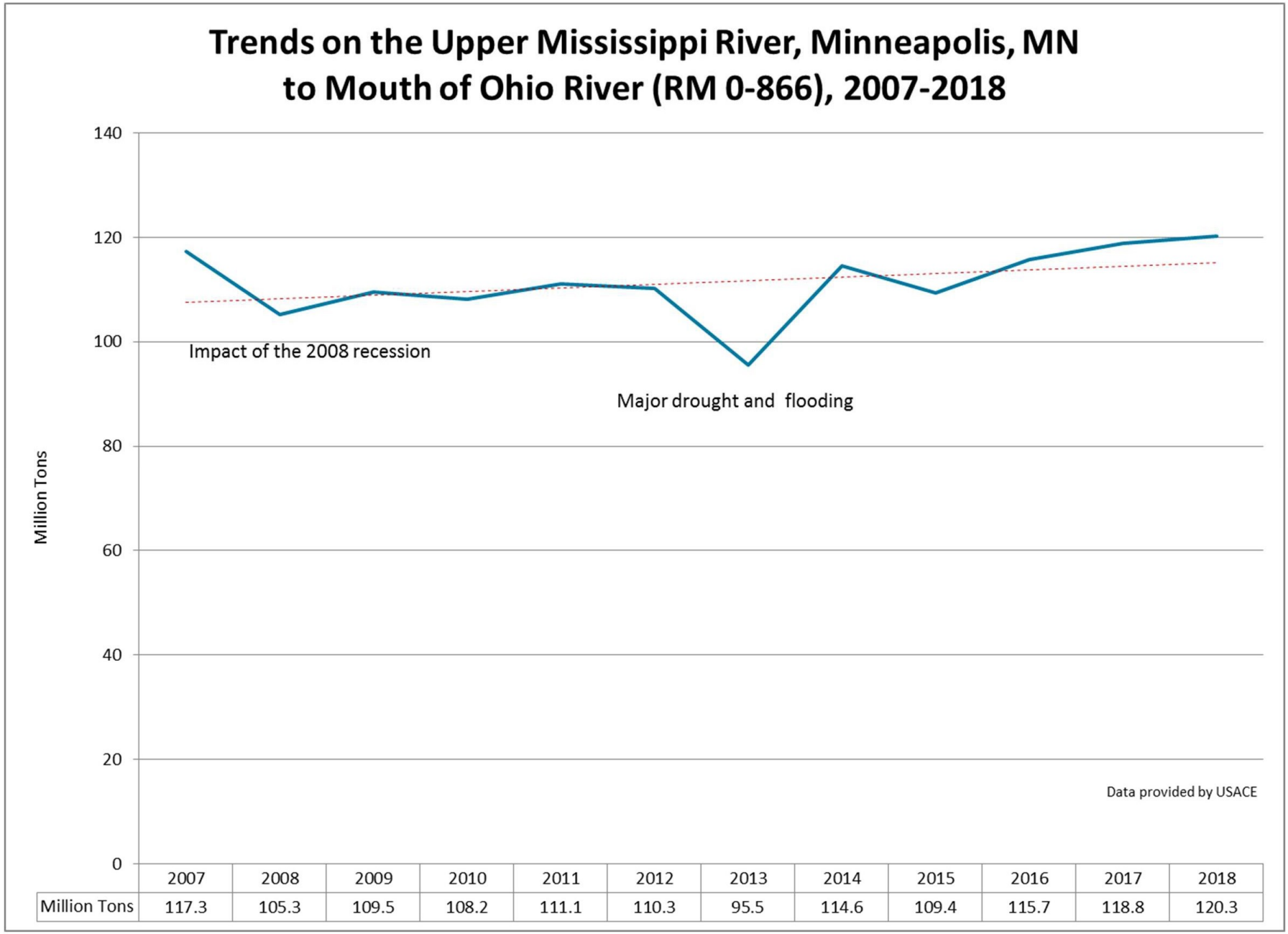


EXHIBIT 7-5:
KASKASKIA REGIONAL PORT DISTRICT
Commodities Moving on the Upper Miss (RM 0-866), 2018

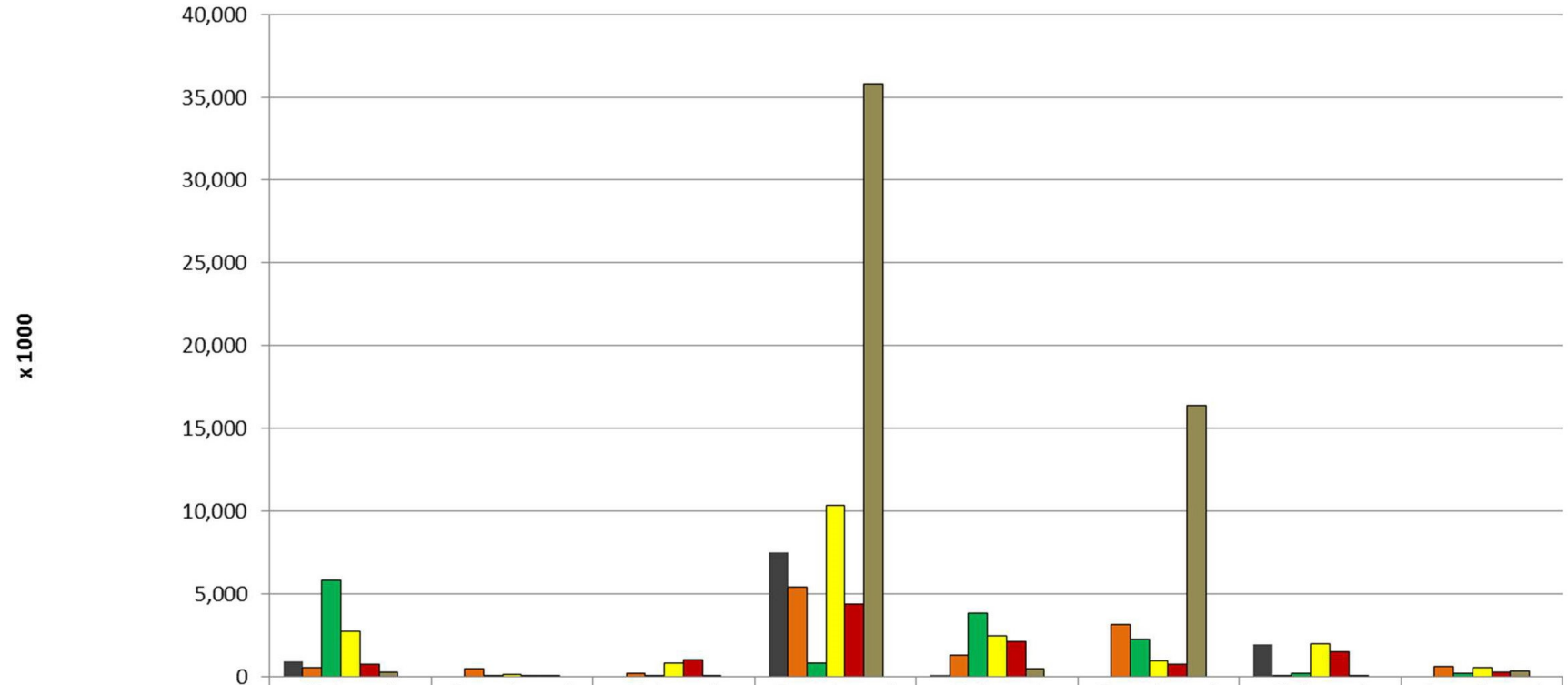
EXHIBIT 7-6:
KASKASKIA REGIONAL PORT DISTRICT
Trends on the Upper Mississippi River, Minneapolis, MN to Mouth of Ohio River (RM 0-866), 2007-2018



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Million Tons	117.3	105.3	109.5	108.2	111.1	110.3	95.5	114.6	109.4	115.7	118.8	120.3

EXHIBIT 7-7:
KASKASKIA REGIONAL PORT DISTRICT
Upbound/Downbound Traffic by Commodity on the Upper Miss (RM 0-866), 2018

Upbound/Downbound Traffic by Commodity on the Upper Miss (RM 0-866), 2018



Data provided by USACE

	Inbound		Outbound		Through		Intra	
	Upbound	Downbound	Upbound	Downbound	Upbound	Downbound	Upbound	Downbound
Coal	944	0	70	7,527	128	25	1,933	0
Petroleum	560	503	209	5,398	1,333	3,162	93	597
Chemicals	5,823	47	26	844	3,866	2,284	243	212
Crude Materials	2,752	124	856	10,359	2,495	978	2,016	541
Primary Manuf. Goods	736	60	1,059	4,397	2,144	752	1,530	277
Food & Farm	291	10	2	35,802	465	16,398	7	333
Manuf. Equipment	11	0	0	11	13	13	0	0
Total Tonnage x 1000	11,117	744	2,222	64,338	10,444	23,612	5,822	1,960

EXHIBIT 7-8:
KASKASKIA REGIONAL PORT DISTRICT
Location of Upper Mississippi (RM 0-195)

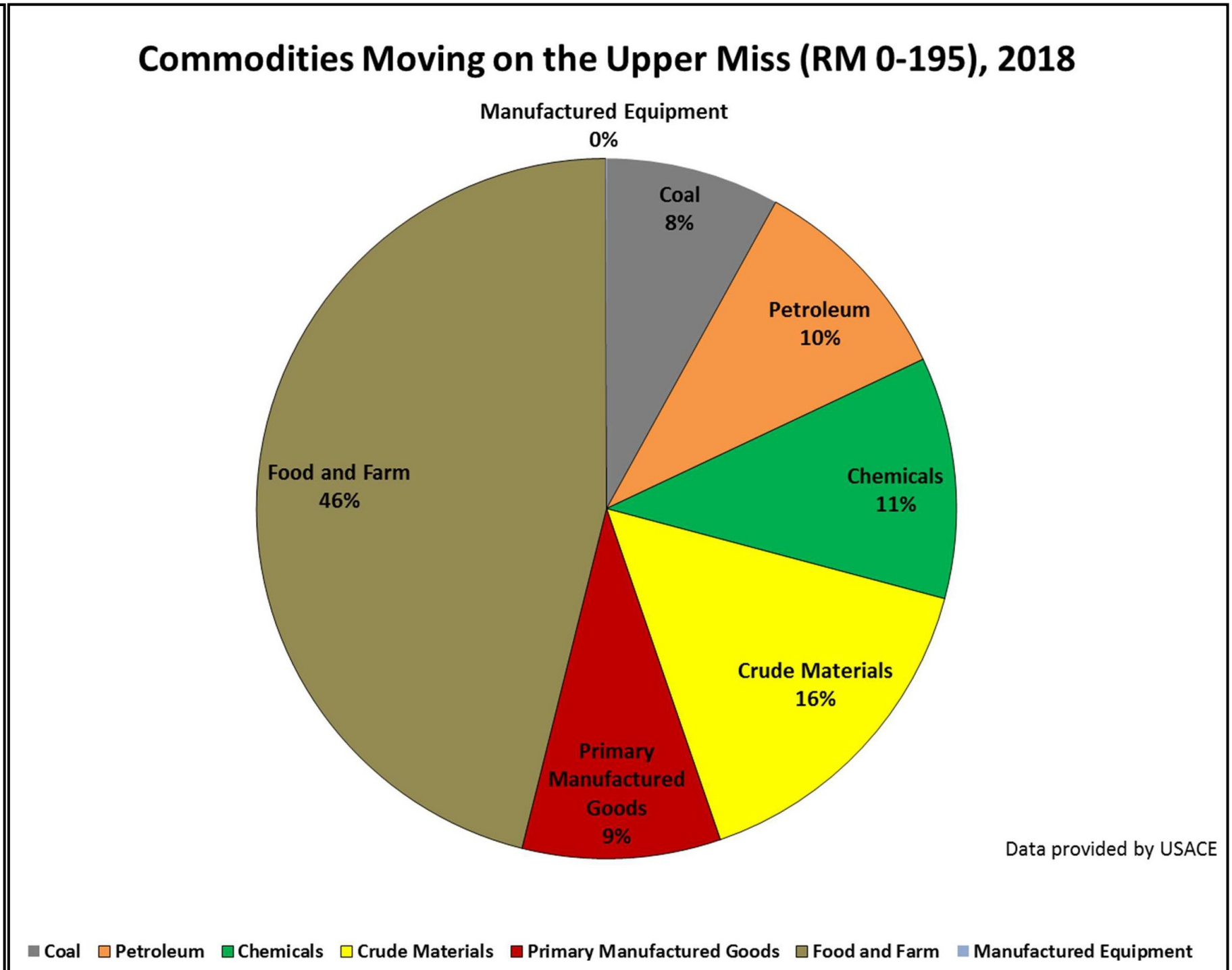
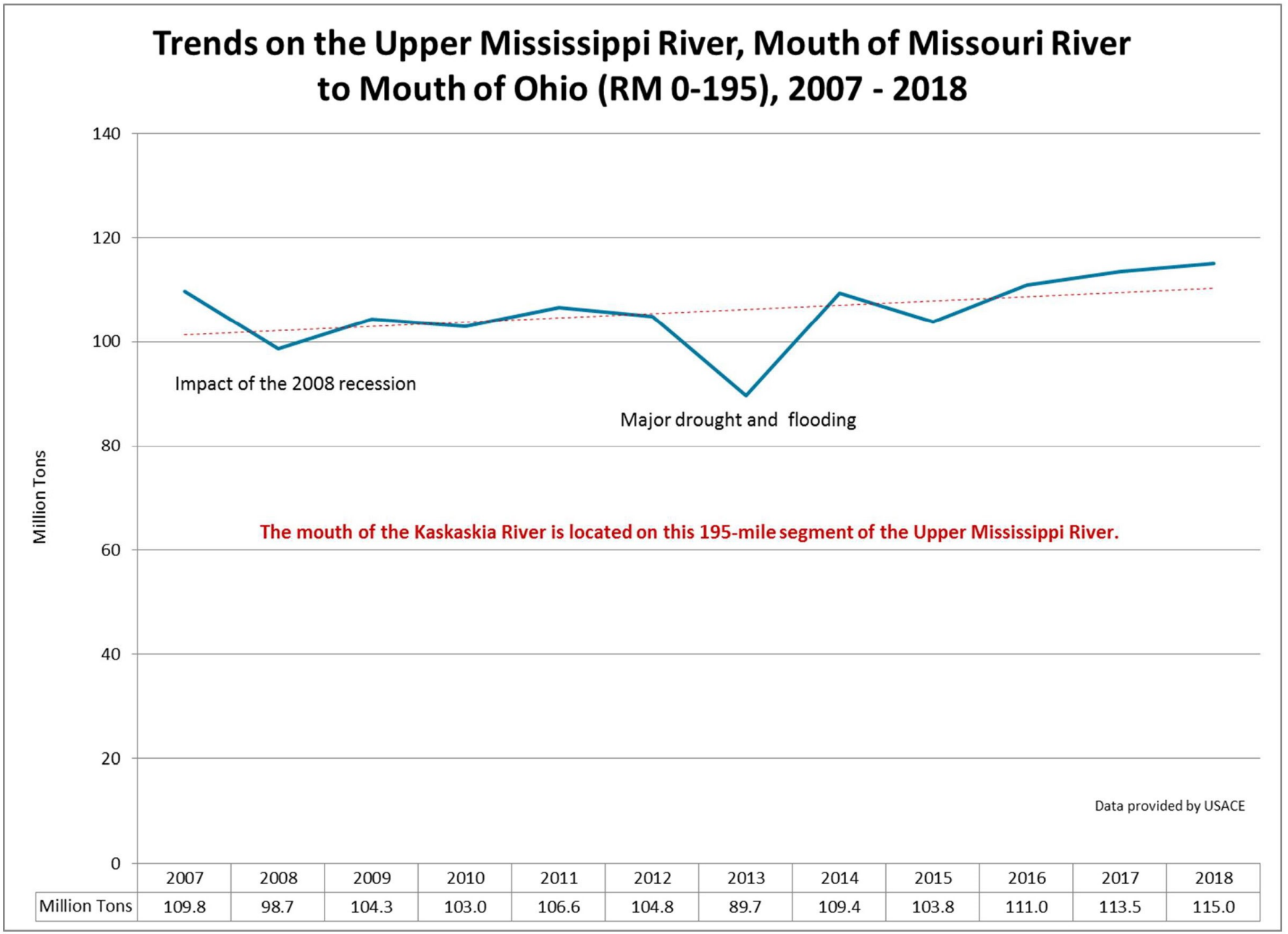


EXHIBIT 7-9:
KASKASKIA REGIONAL PORT DISTRICT
Commodities Moving on the Upper Miss (RM 0-195), 2018

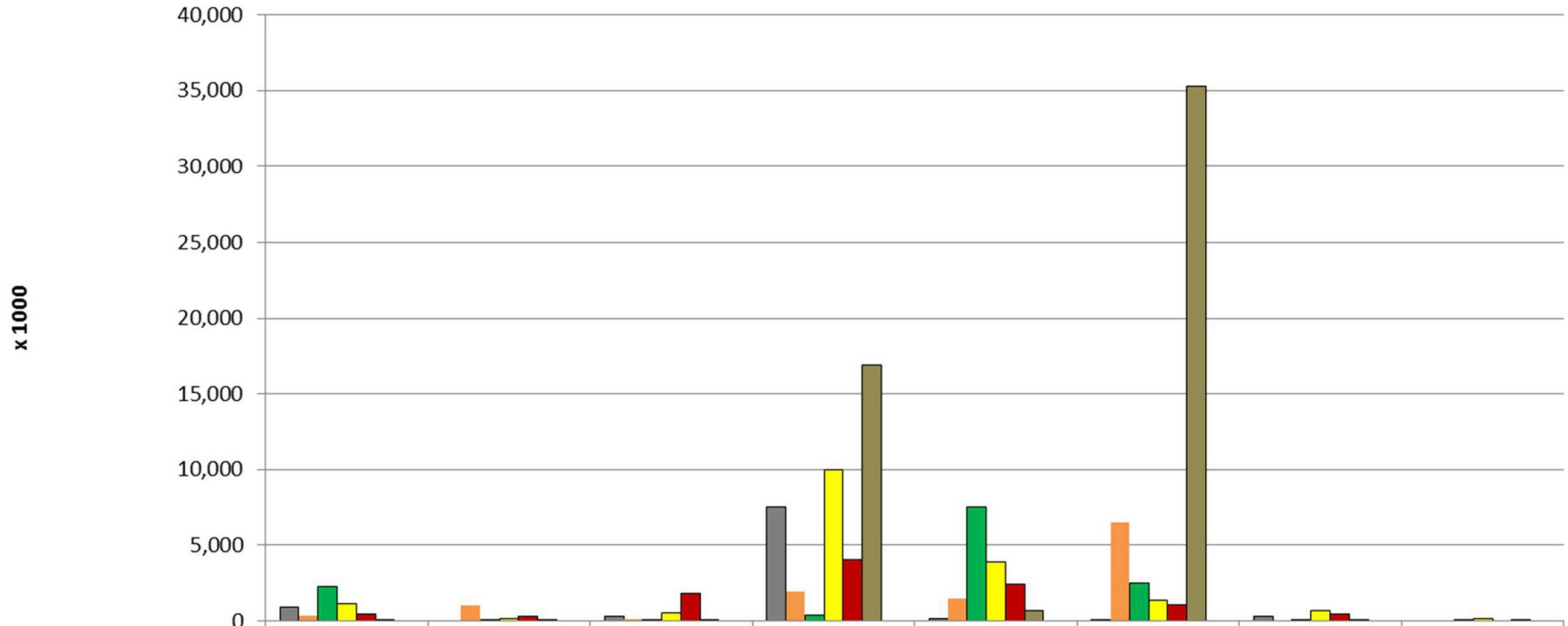


	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Million Tons	109.8	98.7	104.3	103.0	106.6	104.8	89.7	109.4	103.8	111.0	113.5	115.0

EXHIBIT 7-10:
KASKASKIA REGIONAL PORT DISTRICT
Trends on the Upper Mississippi River, Mouth of Missouri River to Mouth of Ohio (RM 0-195), 2007-2018

EXHIBIT 7-11:
KASKASKIA REGIONAL PORT DISTRICT
Upbound/Downbound Traffic by Commodity on the Upper Miss (RM 0-195), 2018

Upbound/Downbound Traffic by Commodity on the Upper Miss (RM 0-195), 2018



Data provided by USACE

	Inbound		Outbound		Through		Intra	
	Upbound	Downbound	Upbound	Downbound	Upbound	Downbound	Upbound	Downbound
Coal	886	0	303	7,527	185	25	310	0
Petroleum	355	1,013	153	1,951	1,474	6,506	0	0
Chemicals	2,262	92	40	362	7,522	2,513	33	6
Crude Materials	1,161	127	520	9,969	3,896	1,355	707	186
Primary Manuf. Goods	456	335	1,835	4,019	2,415	1,044	427	0
Food & Farm	94	18	2	16,866	709	35,286	7	4
Manuf. Equipment	6	0	0	5	18	19	0	0
Total Tonnage x 1000	5,220	1,585	2,853	40,694	16,219	46,748	1,484	196

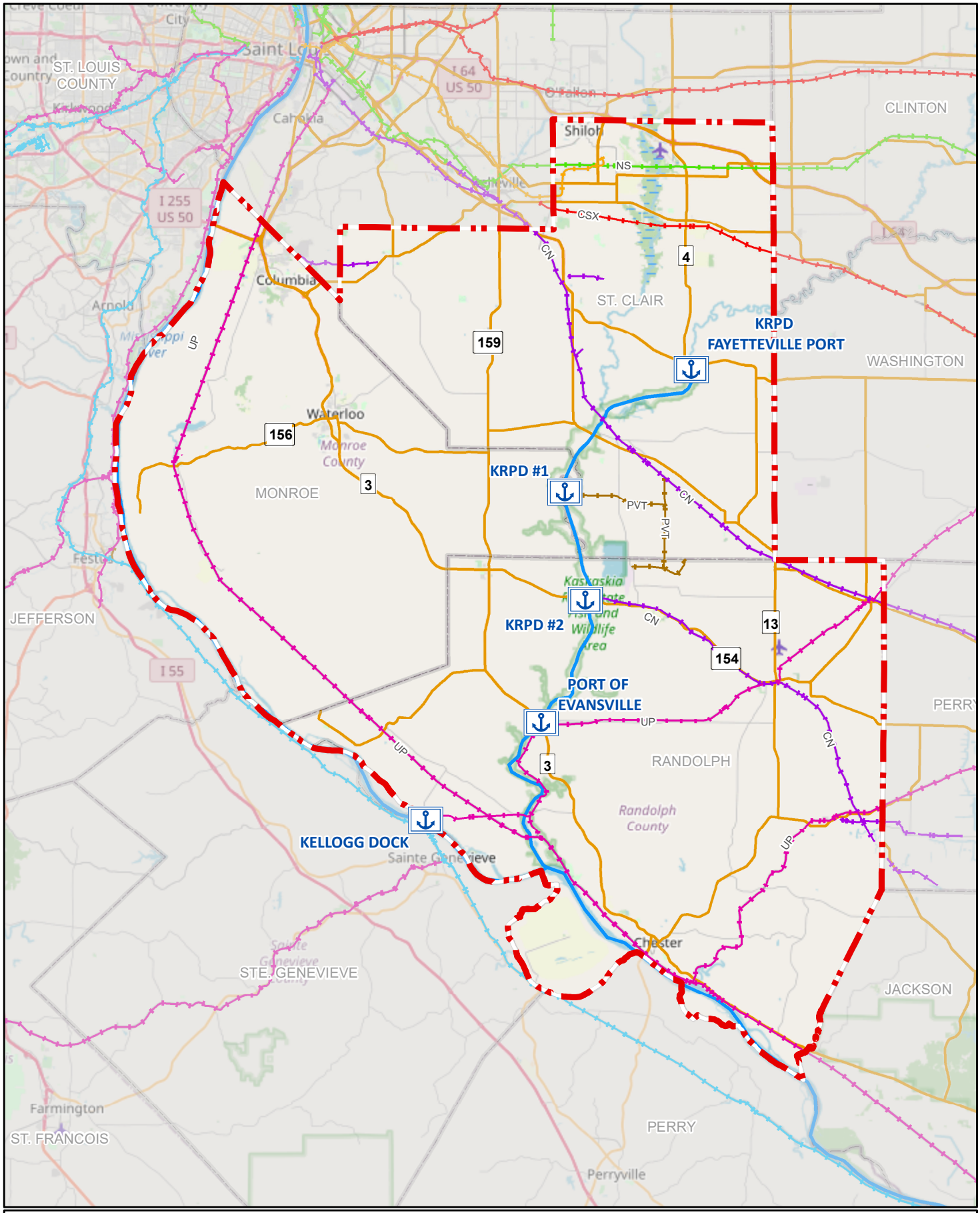


EXHIBIT 7-12:
KASKASKIA REGIONAL PORT DISTRICT
Kaskaskia River and KRPD Terminals

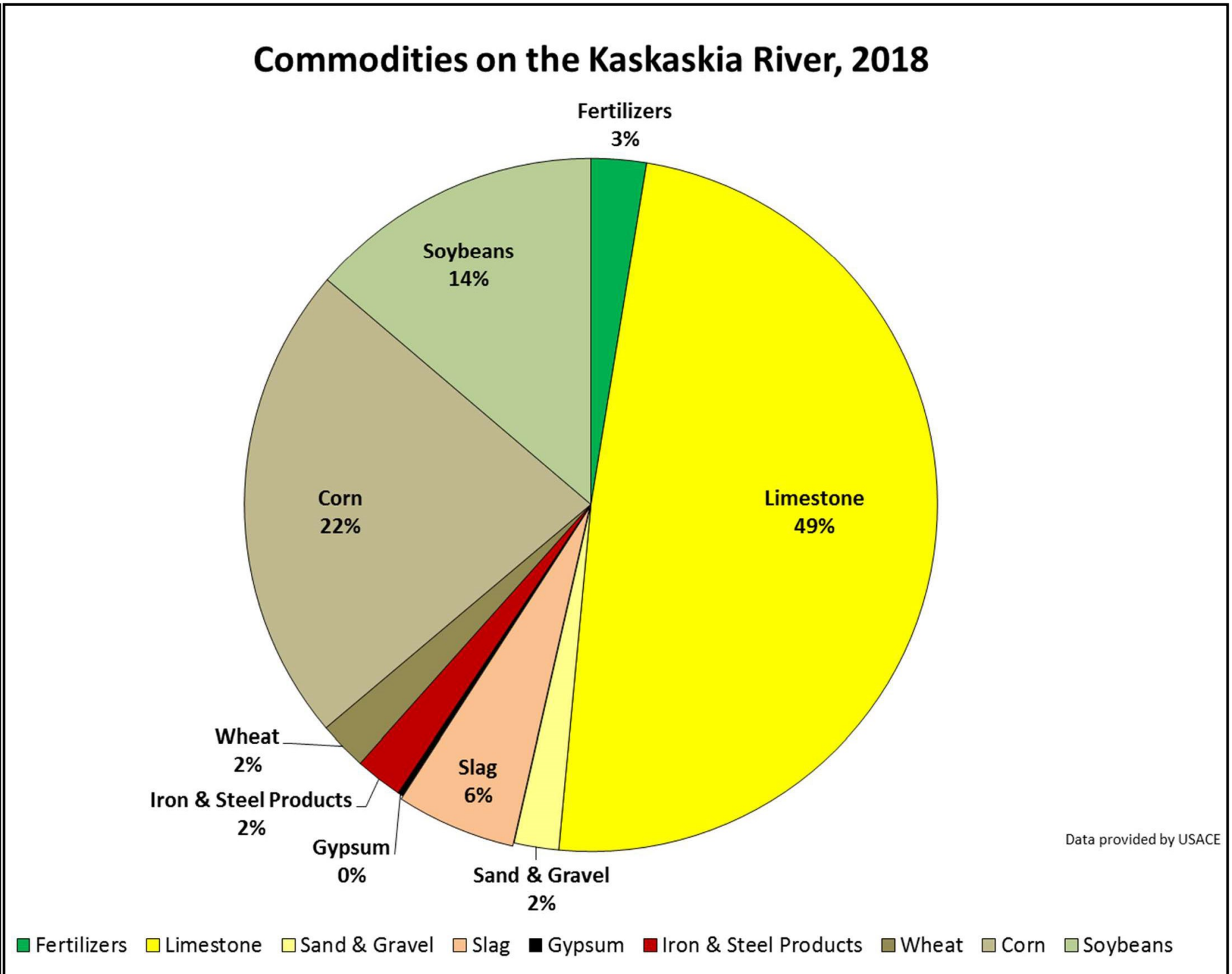
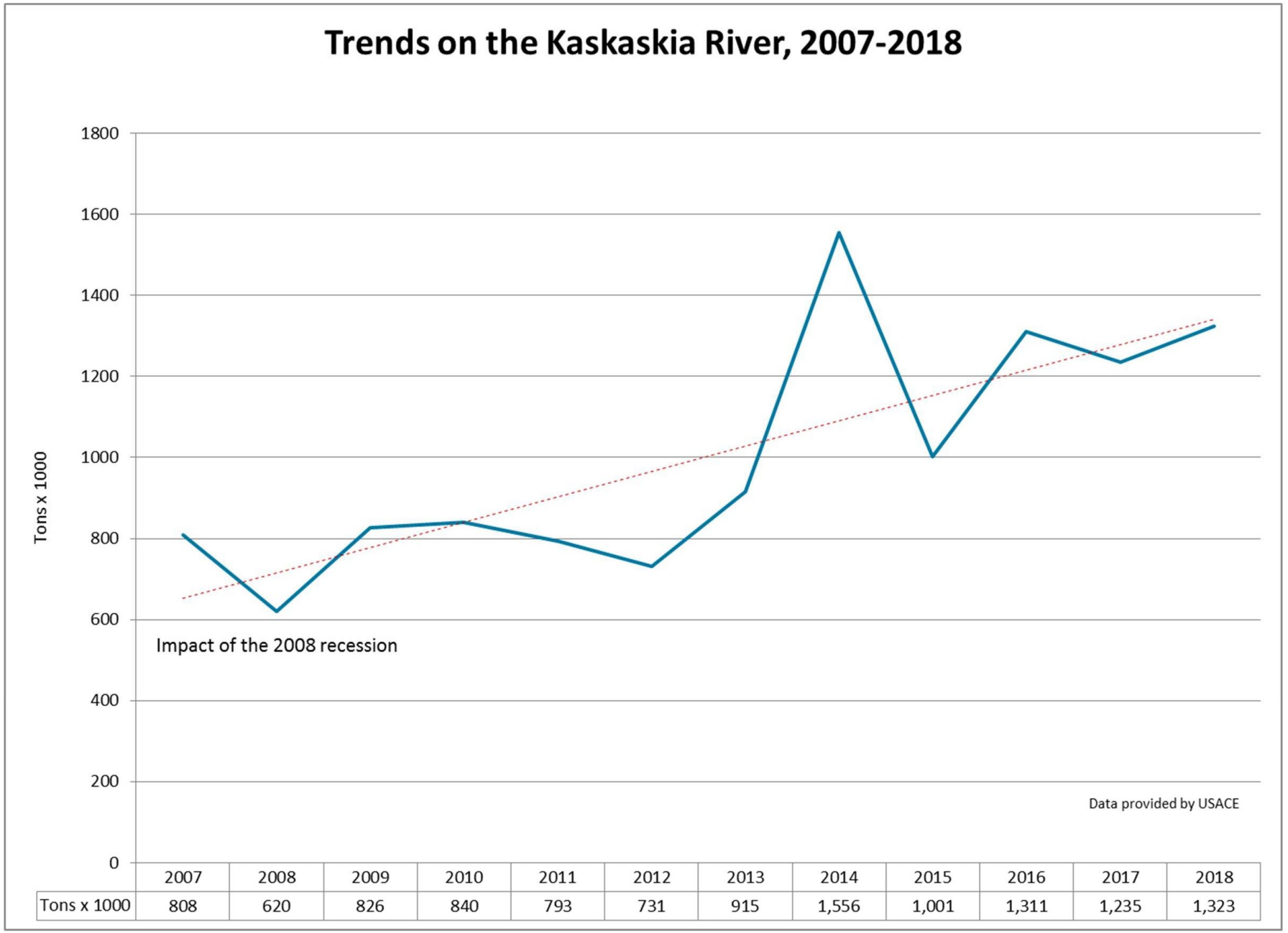


EXHIBIT 7-13:
KASKASKIA REGIONAL PORT DISTRICT
Commodities on the Kaskaskia River, 2018

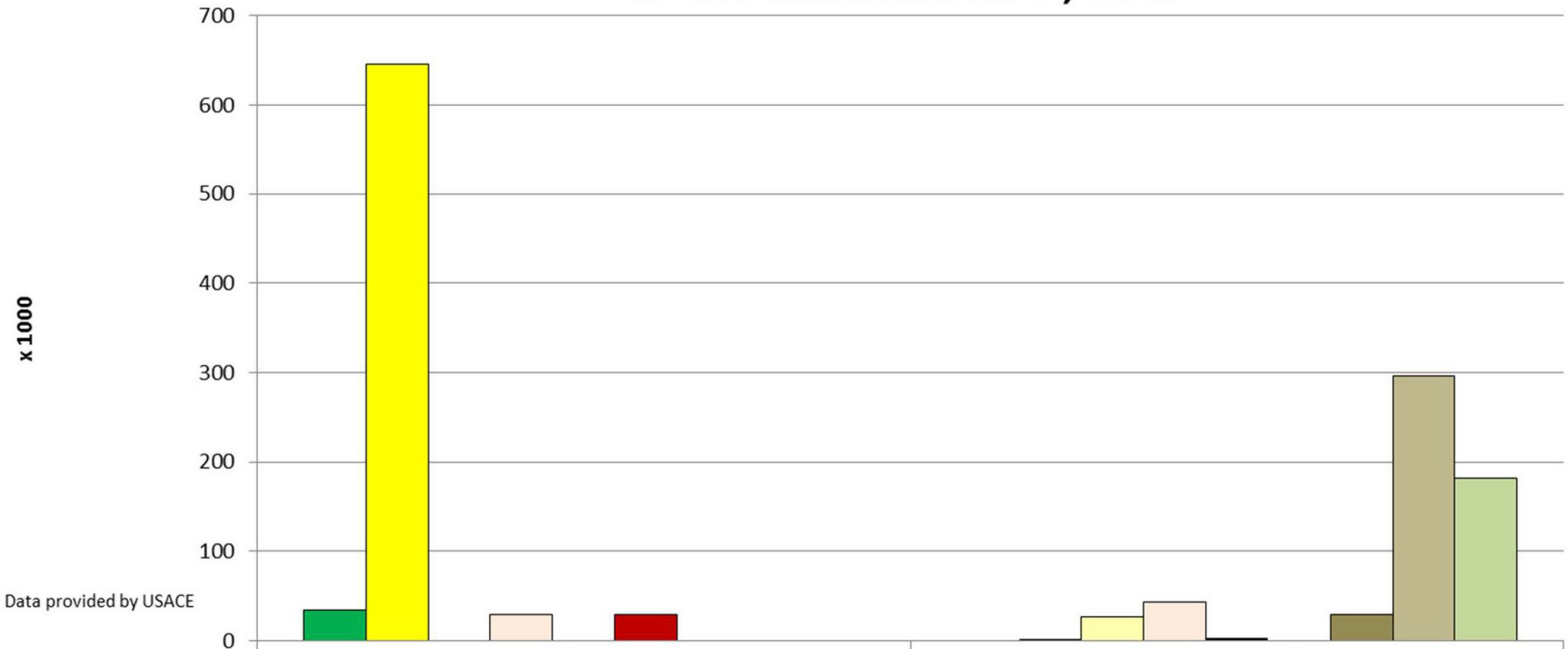
EXHIBIT 7-14:
KASKASKIA REGIONAL PORT DISTRICT
Trends on the Kaskaskia River, 2007-2018



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Tons x 1000	808	620	826	840	793	731	915	1,556	1,001	1,311	1,235	1,323

EXHIBIT 7-15:
KASKASKIA REGIONAL PORT DISTRICT
Traffic Moving Upbound and Downbound on the Kaskaskia River, 2018

Traffic Moving Upbound and Downbound on the Kaskaskia River, 2018

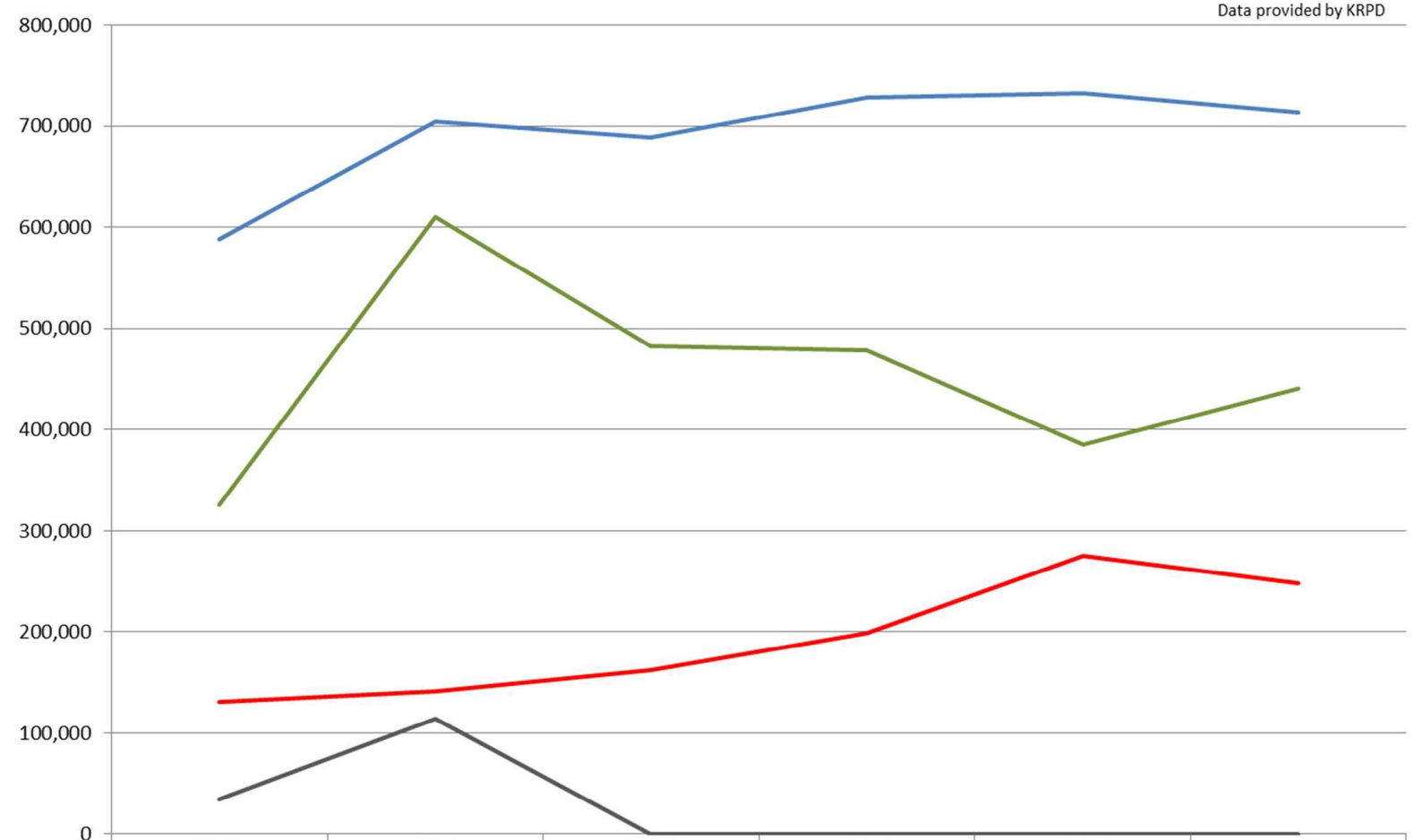


Data provided by USACE

	Upbound	Downbound
Fertilizers	34	0
Limestone	645	2
Sand & Gravel	0	27
Slag	30	44
Gypsum	0	3
Iron & Steel Products	29	0
Wheat	0	30
Corn	0	296
Soybeans	0	182
Total Tonnage x 1000	**738**	**584**

EXHIBIT 7-16:
KASKASKIA REGIONAL PORT DISTRICT
KRPD Terminals Tonnage Trends, 2013-2018

KRPD Terminals Tonnage Trends, 2013 - 2018



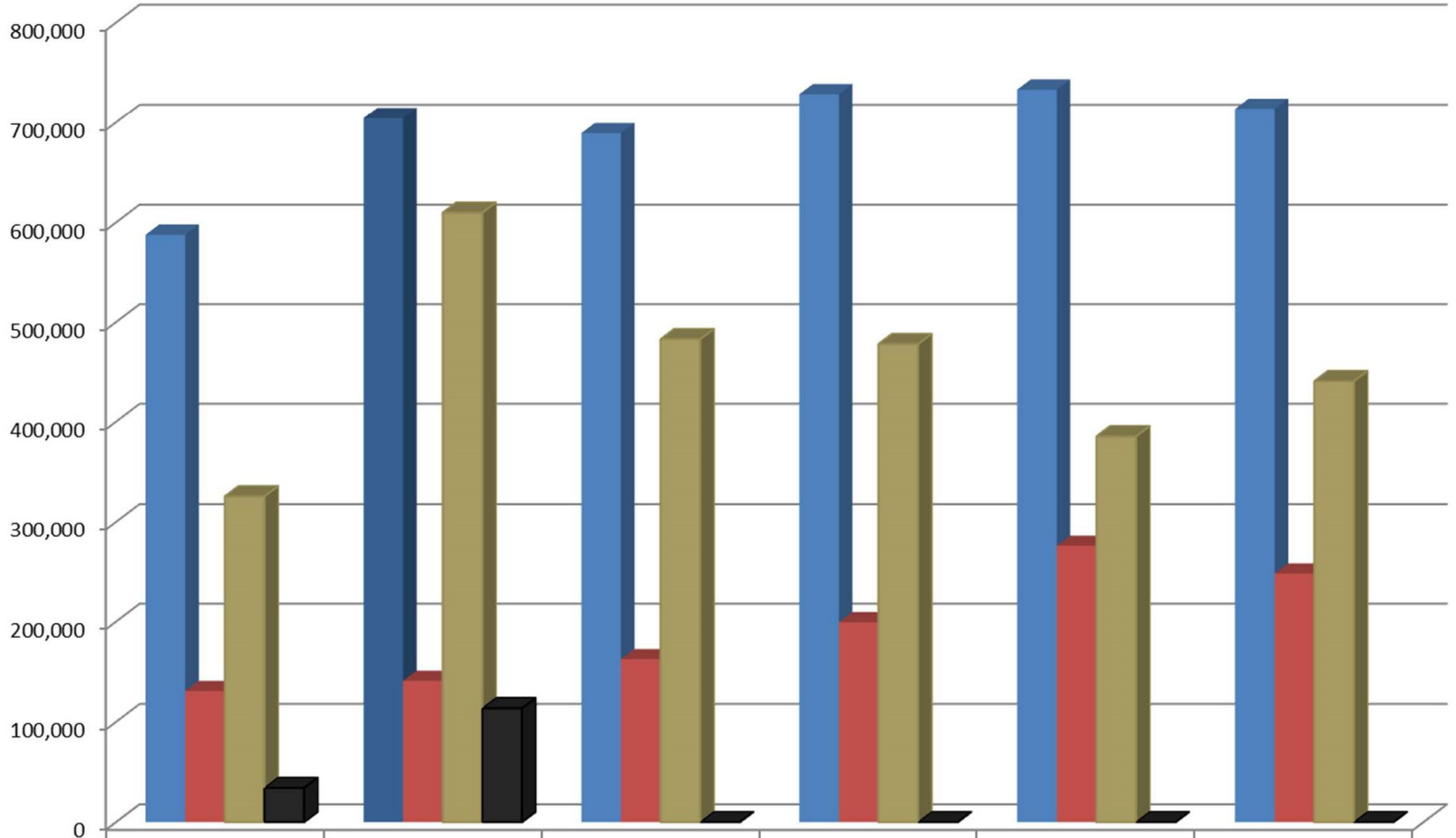
	2013	2014	2015	2016	2017	2018
KRPD #1	587,832	704,355	689,236	728,481	733,163	713,791
KRPD #2	130,809	140,971	162,547	199,376	275,599	248,044
Evansville	325,616	609,878	483,071	478,219	385,475	441,143
Kellogg	34,262	113,700	0	0	0	0

Kaskaskia River Terminals Subtotal	1,044,257	1,455,204	1,334,854	1,406,076	1,394,237	1,402,978
Mississippi River Terminal Subtotal	34,262	113,700	0	0	0	0
Total Terminals	**1,078,519**	**1,568,904**	**1,334,854**	**1,406,076**	**1,394,237**	**1,402,978**

EXHIBIT 7-17:
KASKASKIA REGIONAL PORT DISTRICT
Tonnage at KRPD Terminals, 2013-2018

Tonnage at KRPD Terminals, 2013 - 2018

Data provided by KRPD



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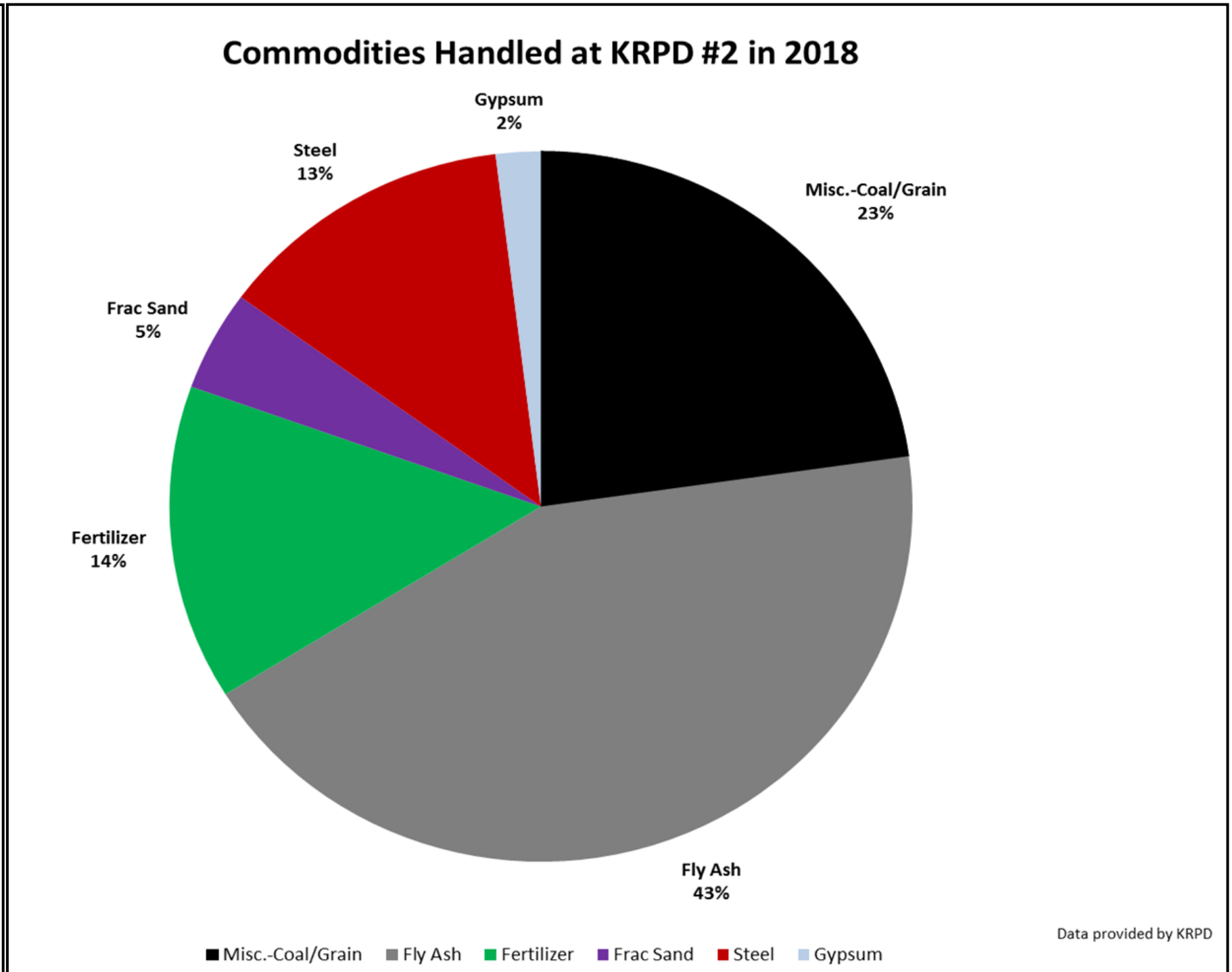
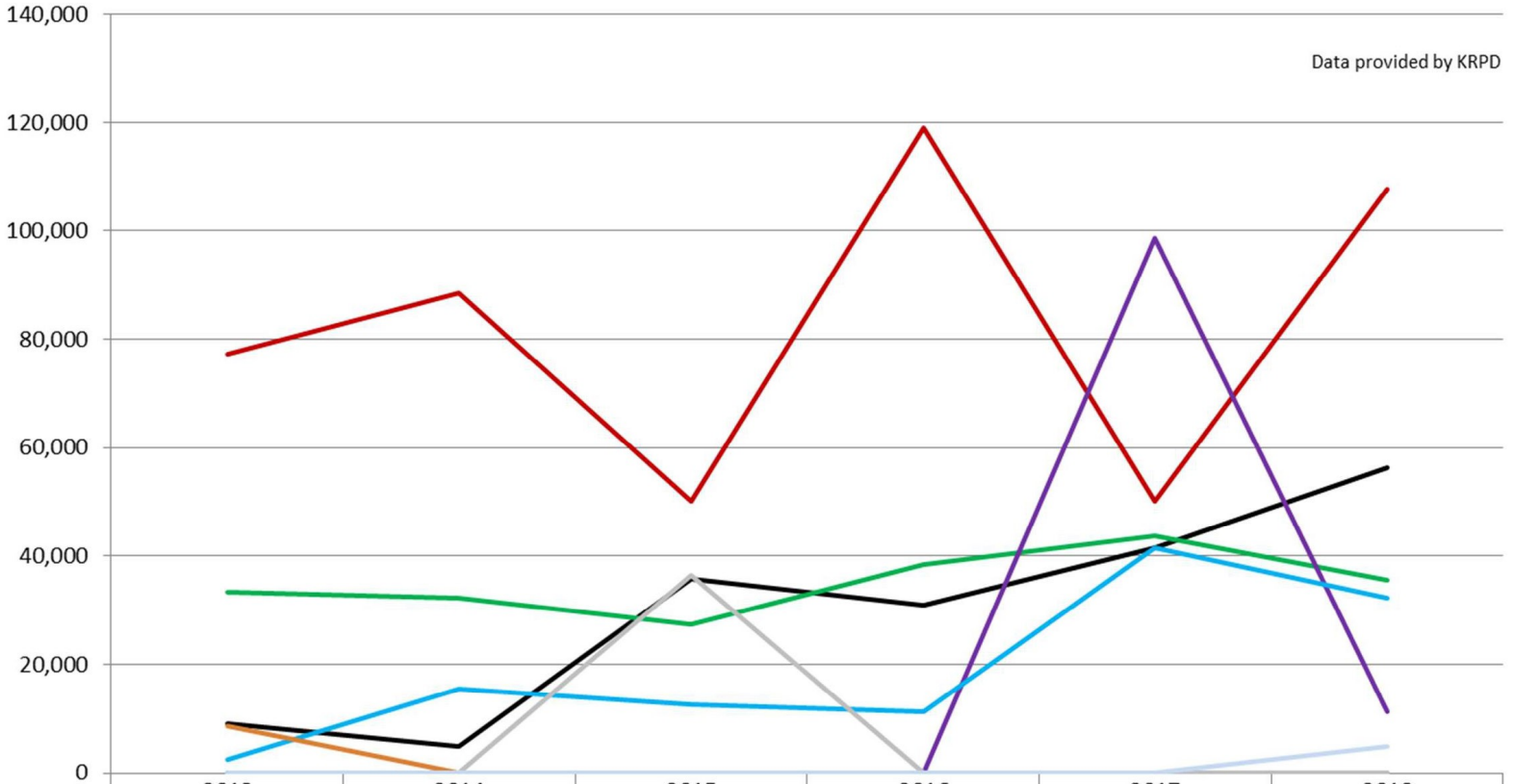


EXHIBIT 7-18:
KASKASKIA REGIONAL PORT DISTRICT
Commodities Handled at KRPD#2 in 2018

EXHIBIT 7-19:
KASKASKIA REGIONAL PORT DISTRICT
Commodity Trends at KRPD#2, by Barge Only, 2013-2018

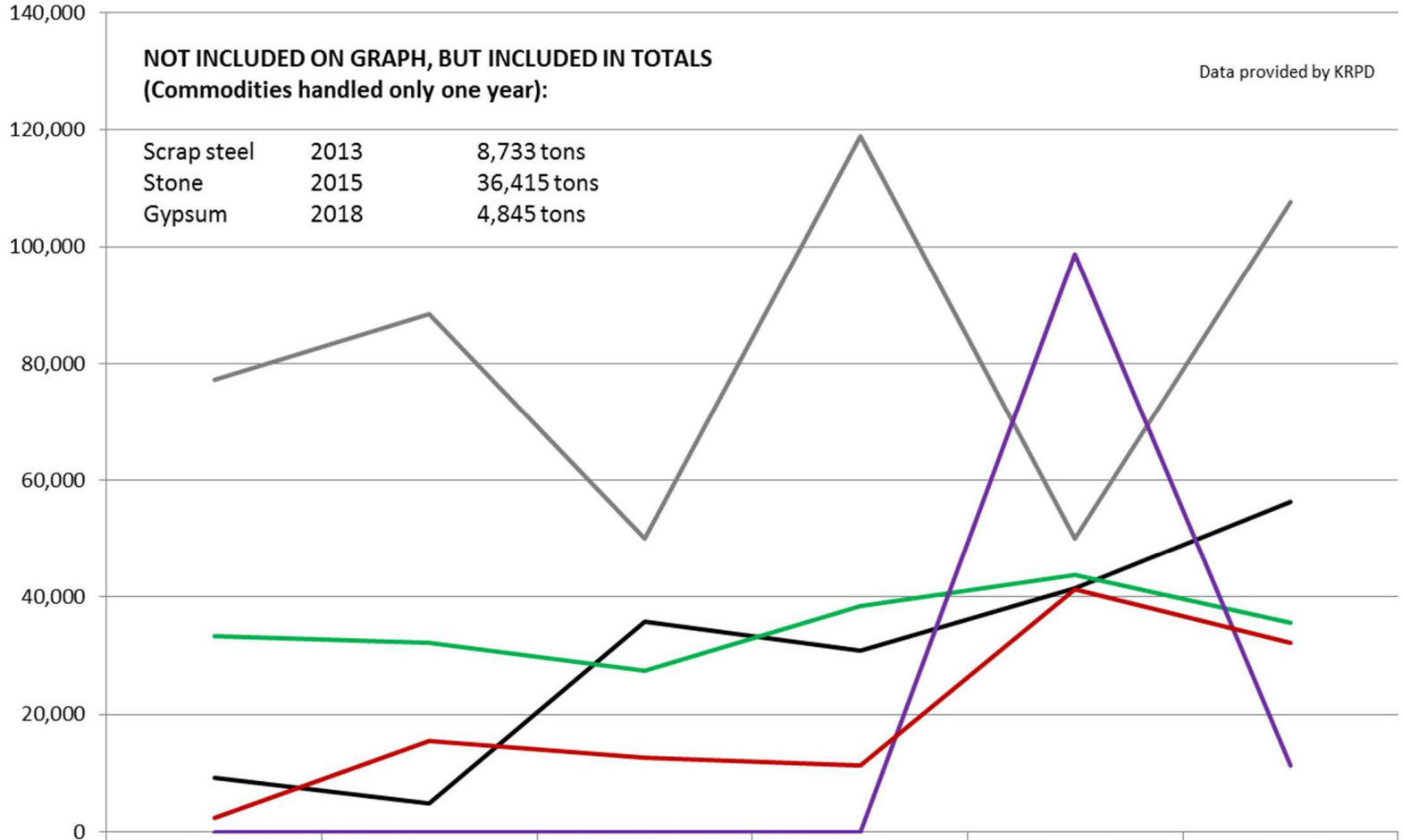
Commodity Trends at KRPD #2, by Barge Only, 2013 - 2018



	2013	2014	2015	2016	2017	2018
Misc.-Coal/Grain	9,155	4,817	35,876	30,856	41,544	56,397
Fly Ash	77,177	88,499	50,127	118,879	50,153	107,653
Fertilizer	33,387	32,262	27,479	38,409	43,723	35,577
Frac Sand	0	0	0	0	98,759	11,299
Steel	2,357	15,393	12,650	11,232	41,420	32,273
Scrap Steel	8,733	0	0	0	0	0
Stone	0	0	36,415	0	0	0
Gypsum	0	0	0	0	0	4,845
Total Tonnage	**130,809**	**140,971**	**162,547**	**199,376**	**275,599**	**248,044**

EXHIBIT 7-20:
KASKASKIA REGIONAL PORT DISTRICT
Commodity Trends at KRPD#2, 2013-2018

Commodity Trends at KRPD #2, 2013 - 2018



	2013	2014	2015	2016	2017	2018
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Fertilizer	33,387	32,262	27,479	38,409	43,723	35,577
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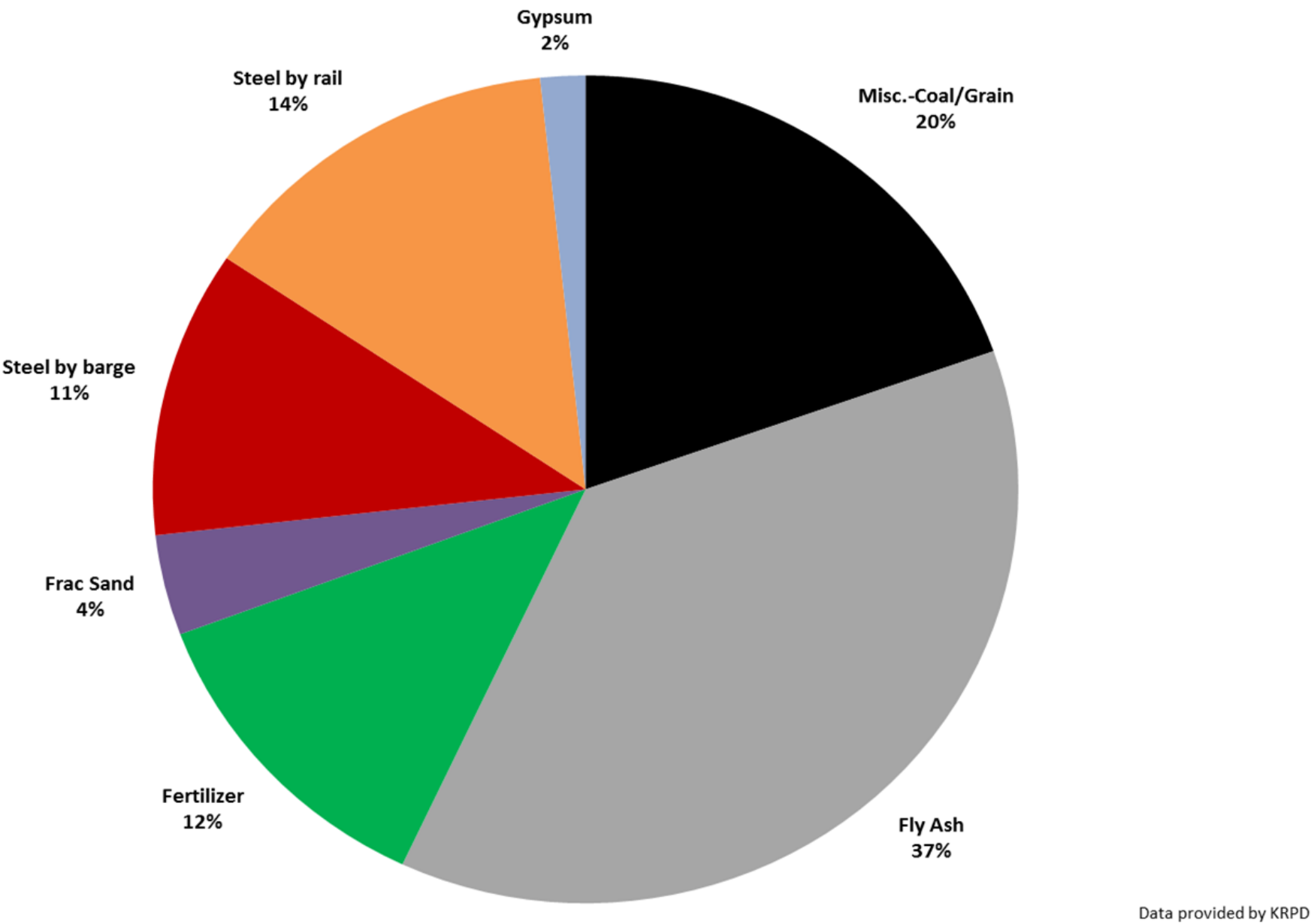
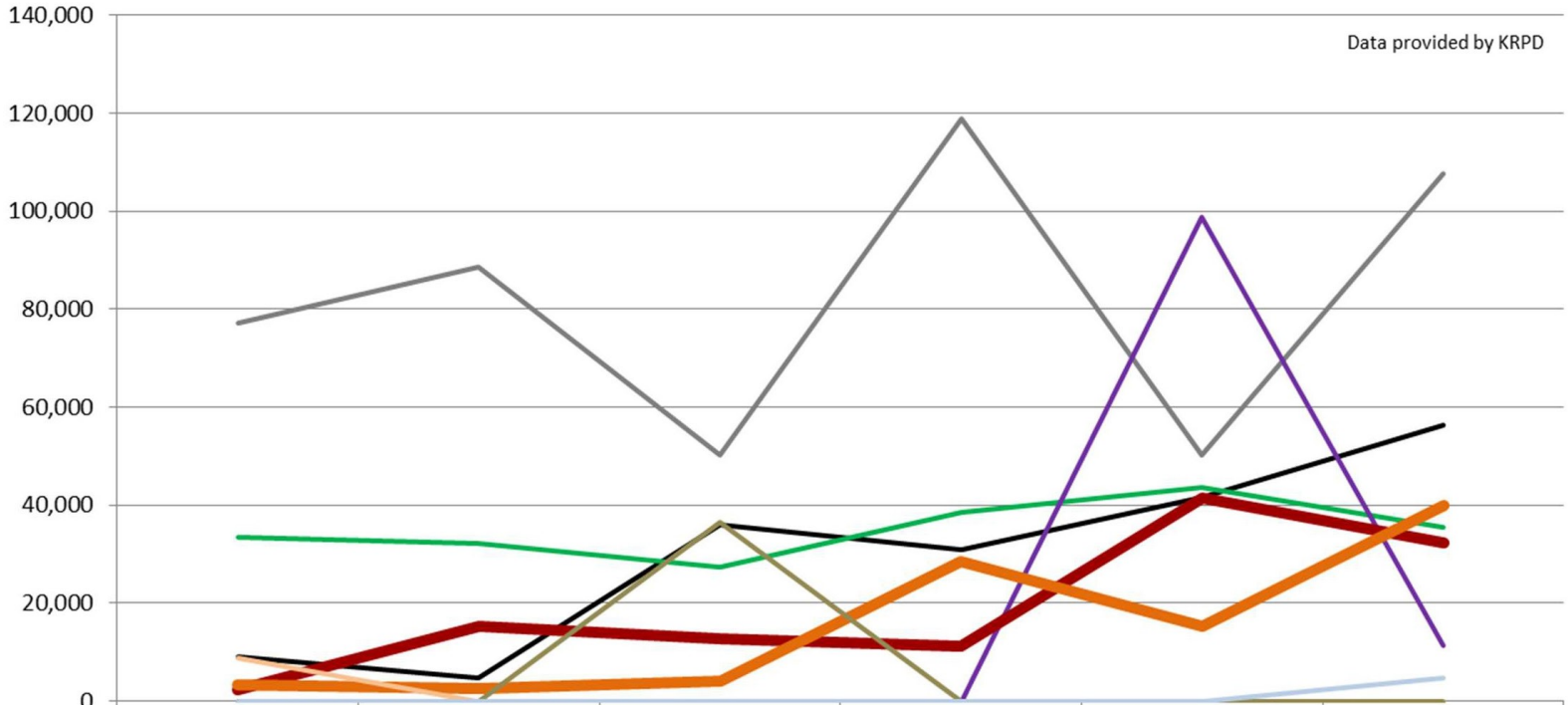


EXHIBIT 7-21:
KASKASKIA REGIONAL PORT DISTRICT
Commodities Handled at KRPD#2 in 2018, including Steel by Rail

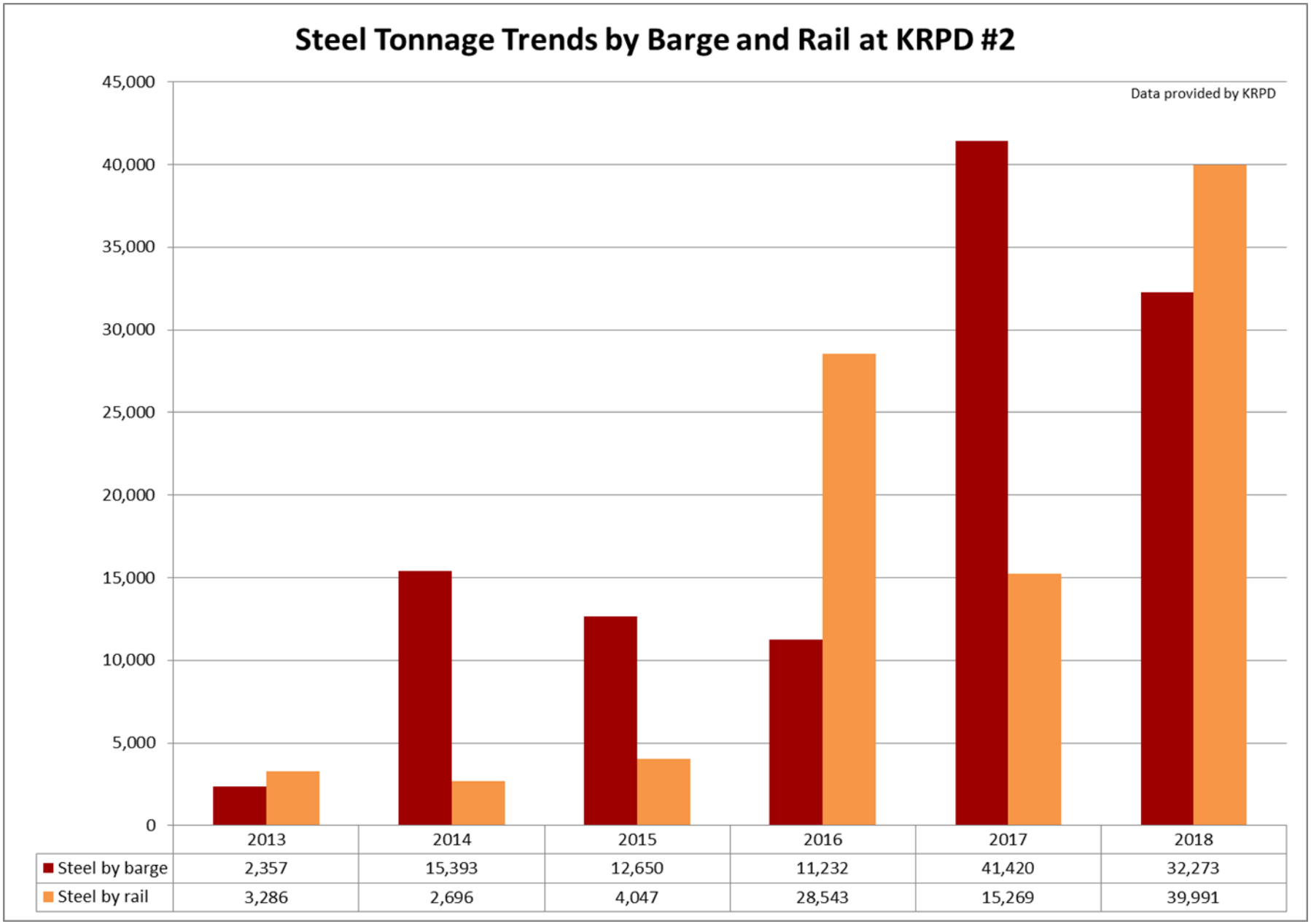
EXHIBIT 7-22:
KASKASKIA REGIONAL PORT DISTRICT
Commodity Trends at KRPD#2, Including Steel by Rail, 2013-2018

Commodity Trends at KRPD #2, Including Steel by Rail, 2013 - 2018



	2013	2014	2015	2016	2017	2018
Misc.-Coal/Grain	9,155	4,817	35,876	30,856	41,544	56,397
Fly Ash	77,177	88,499	50,127	118,879	50,153	107,653
Fertilizer	33,387	32,262	27,479	38,409	43,723	35,577
Frac Sand	0	0	0	0	98,759	11,299
Steel by barge	2,357	15,393	12,650	11,232	41,420	32,273
Steel by rail	3,286	2,696	4,047	28,543	15,269	39,991
Scrap Steel	8,733	0	0	0	0	0
Stone	0	0	36,415	0	0	0
Gypsum	0	0	0	0	0	4,845
Total Tonnage	**134,095**	**143,667**	**166,594**	**227,919**	**290,868**	**288,035**

EXHIBIT 7-23:
KASKASKIA REGIONAL PORT DISTRICT
Steel Tonnage Trends by Barge and Rail at KRPD#2



	2013	2014	2015	2016	2017	2018
Steel by barge	2,357	15,393	12,650	11,232	41,420	32,273
Steel by rail	3,286	2,696	4,047	28,543	15,269	39,991

8. Primary Market Area for KRPD#2

Locations of roads and regional river ports and terminals which influence the reach of the KRPD#2 primary market area are shown in ***Exhibit 8-1***. To the north, terminals in the St. Louis area, including the port complex near Granite City, Illinois, known as America's Central Port, pose a competitive barrier. To the east and south, the Indiana Port Commission complex at Mt. Vernon, Indiana, and the Paducah-McCracken County Port Authority, along with a number of private terminals in northwest Kentucky, provide competition for KRPD#2. To the south and southwest, Missouri ports including the Southeast Missouri Regional Port (SEMO), New Bourbon Regional Port, and Jefferson County Port, provide competing river terminal services limiting the general reach of KRPD#2. Insufficient bridge crossing on the Mississippi River impacts the reach of the tenant to service markets and commodities in that region.

The market area delineated on Exhibit 8-1 is only for purposes of analysis in this report. It does not in any way prohibit KRPD#2 from serving customers outside the market area, but creates an awareness that there must be a service, logistical or an economic incentive for shippers to travel past these competing ports and do business at KRPD#2.

8.1. Population

For general context and characterization of the primary KRPD#2 market area, population distribution is shown in ***Exhibit 8-2***. St. Clair County is the most densely populated county. Washington and Perry are the counties with lowest populations.

8.2. Agricultural Production

Agricultural production supports the economies of several counties in the KRPD#2 market area. Grain crops generally move out of the KRPD facility at Evansville, but fertilizer to support this agricultural production moves through KRPD#2. ***Exhibits 8-3, 8-4,*** and ***8-5*** show 2018 crop production statistics for soybeans, corn and wheat, respectively. Washington County leads the area in soybean production, followed by Randolph, St. Clair, Clinton and Marion Counties. St. Clair, Clinton and Washington produce the most corn. Both corn and wheat require nitrogenous fertilizers. Washington County is the highest

producer of wheat. The Gateway FS facility at KRPD#2 is strategically located to provide fertilizer to these highly productive counties.

8.3. Energy Production

The locations of mines and power plants in the area are shown on ***Exhibit 8-6***. The Prairie State Energy Campus includes a coal fired power plant near KRPD#1 and the Baldwin Power Plant is near KRPD#2. Significant cargoes on the Kaskaskia River are due to operations of these power plants. Limestone for scrubbers is moved through KRPD#1. Power plant byproducts like fly ash and bottom ash are currently moved by barge and rail from Prairie State through KRPD#2. Although this plan is focused on KRPD#2, the volumes of cargoes moved through KRPD#1 nonetheless are important for generating river traffic which helps to justify USACE funding for operations and maintenance on the Kaskaskia River.

Coal production at local mines has declined in recent years, and coal that has been mined is now shipped primarily by rail. It is important to be mindful of the locations of these mines, however, as global energy prices and government policies which led to the decline in coal production are subject to change over time.

8.4. Area Industries

The distribution of significant industries in the KRPD#2 primary market area counties is illustrated in a bar chart, ***Exhibits 8-7***, and on the market area map, ***Exhibit 8-8***. By far, the largest concentration of manufacturing industries is in St. Clair County. The number of manufacturing employees in each market area county is shown on the bar graph in ***Exhibit 8-9*** and on the market area map in ***Exhibit 8-10***. St. Clair County has the largest number of manufacturing employees, but the counties of Randolph, Marion and Jefferson also have significant numbers of jobs provided by manufacturers.

8.5. Container-on-Barge

Container traffic is common on inland waterways in Europe. On the US inland waterway system, standard jumbo hopper barges and towboats can be used to move barges carrying containers. The

KRPD#2 overhead bridge crane has capacity to lift containers on/off of barges. Containers are currently moving on barges between Memphis, Baton Rouge and New Orleans.

The potential for moving containers on barges at KRPD#2 is related to market demand and competitive location. Global container shippers usually use a freight forwarder or broker to arrange for container transport between a location in the US and a location overseas. The freight forwarder and shipper have an agreement which typically includes a price and a certain number of days for global delivery. The shipper usually does not care which mode of domestic transport is used, and typically does not care which sea port is used, so long as the cargo is delivered to its global destination reliably, on time, in good condition and for the quoted price.

For any mode of domestic transport to work (truck, rail or barge), there needs to be reliable, competitively priced, regularly scheduled service, which meets the sailing schedule of the designated vessel at whichever coastal port is used, in order to make the on-time global delivery. For barge, critical mass of container volumes is very important for financial reasons, as the cost of moving a barge is relatively the same regardless of whether the barge has very few containers or a full load. This can make it difficult for the service provider to provide a price per container, and to guarantee reliable service on a fixed schedule. Reliable, timely service is highly valued by shippers and by freight forwarders.

Some issues to be resolved for KRPD#2 to consider container-on-barge service include:

- Identifying sufficient volumes of containers which are using the Port of New Orleans, Port of Mobile, or perhaps some other Gulf Coast container port linked to the inland waterway system, and for which it makes more sense to load/unload those containers at KRPD#2 rather than at a port located on the Ohio River or Mississippi River;
- Identifying carriers which can provide cost competitive, reliable service; and
- Identifying shippers which have less time-sensitive containerized cargo, are who are willing to take the risk of a start-up service.

The challenge is greater on the business side than on the physical side. A 2015 KRPD study addresses primary physical issues of loading/unloading and handling containers at KRPD#2.

8.6. KRPD Area Information from a Recent KRPD#1 Study

Information contained in a study for KRPD#1 dated July 10, 2018, has been evaluated for applicability to KRPD#2. The following points were gleaned from this evaluation.

- In the St. Louis area, between 1998-2015, there was a decline in demand for bulk products to support industry, mainly due to decline in auto and steel-making sectors;
- No significant opportunities for barge movements generated by existing manufacturing industries, other than those presently served, were identified;
- Agriculture is strong but there have been recent investments in grain terminals on the Mississippi River which influence outbound grain prospects;
- So long as the Prairie State and Baldwin power plants remain in operation, KRPD has the opportunity to position itself as a distribution center for coal-fired power plant by-products;
- There may be a transload opportunity for export grain moving from Canada to New Orleans, transferring grain from rail cars to barges.

8.7. Market Assessment Summary

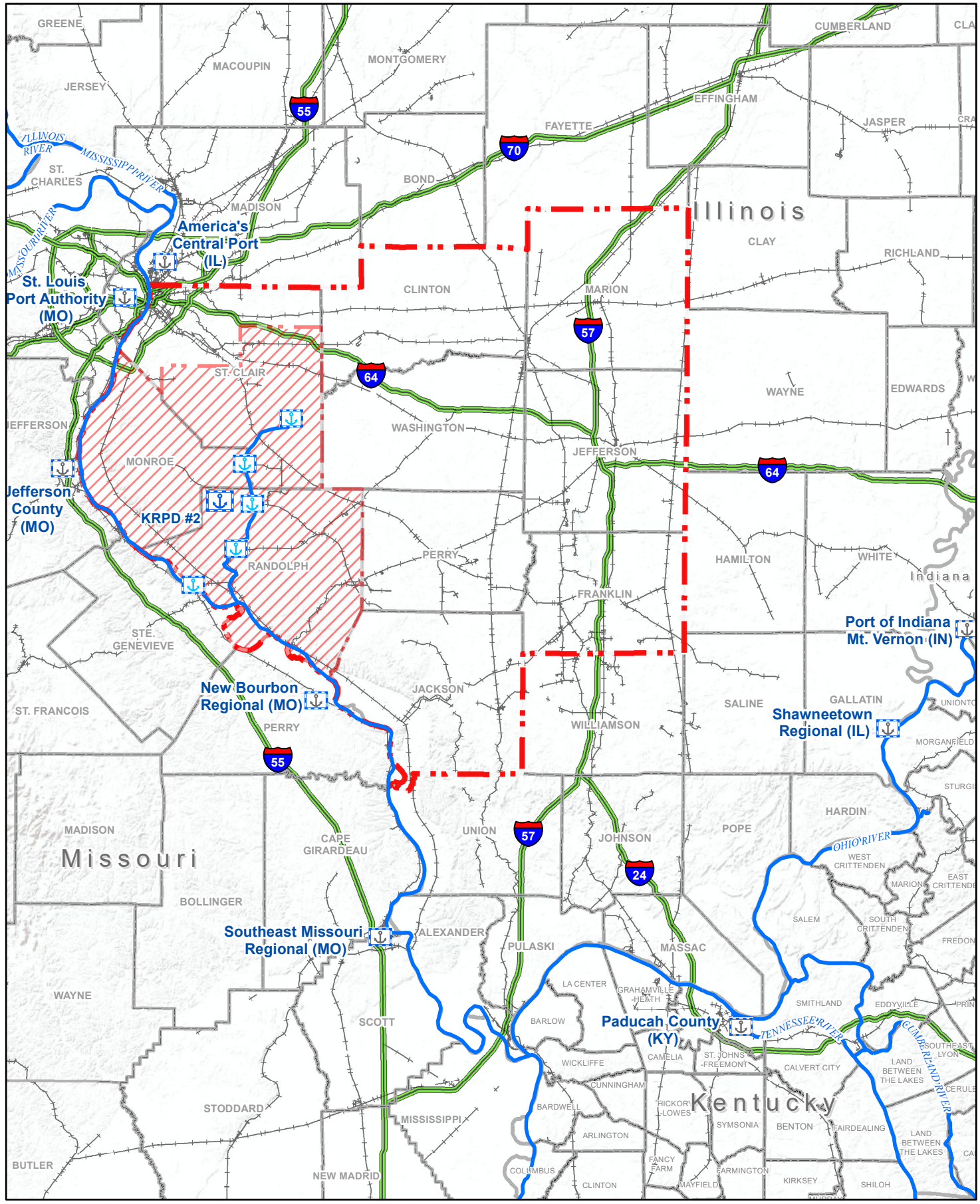
Existing on-site operations at Gateway FS and TMW support much of the cargo moving through KRPD#2. All of the Gateway FS and TMW cargo is inbound, meaning barges are unloaded at KRPD#2. Outbound cargo in recent years has been limited to loading dry bulk materials, typically using the bulk dock either for direct-dump or conveyor transfer to load the barges.

The agricultural economy within the primary market area is robust, and there is strong demand for nitrogenous fertilizer products. Gateway FS provides dry bulk fertilizers, including custom blends, as well as ammonium nitrate and UAN. Some UAN solution is trucked in to the Gateway FS complex, stored in tanks, and loaded into customer trucks. UAN often moves on the inland waterway system in liquid tank barges. There may be opportunities for moving bulk liquids at KRPD#2. Quantities of UAN to be purchased and methods of delivery, specifically barge sizes and related details, are issues which must be addressed by Gateway FS to advance the discussion of feasibility, and continuing discussions are underway.

Demand for barge loads and rail car loads of steel is strong and should increase over the next few years due to work at TMW. KRPD marketing efforts could aim at regional steel producers, with a goal of making KRPD#2 a raw steel storage and distribution center. Development of hardstand and efficient truck movement roadways are important for providing service to future hot band customers.

Transload shipments of dry bulk materials such as fly ash, slag, limestone, frac sand etc., have generated good business volumes at KRPD#2, and have also led to periodic traffic congestion. Maintaining and improving dry bulk transload efficiencies at KRPD#2 are important factors in nurturing the growth of this business, much of which is opportunistic.

Opportunities for moving additional general cargo generated by industries in the market area have not been identified. One strategy for growth is to create opportunities by developing pad-ready industrial sites at and near KRPD#2, and recruiting high-wage barge-using or rail-using industries to locate there. Attracting new industrial investments and jobs is consistent with the overall KRPD mission and will enhance economic growth in the area.



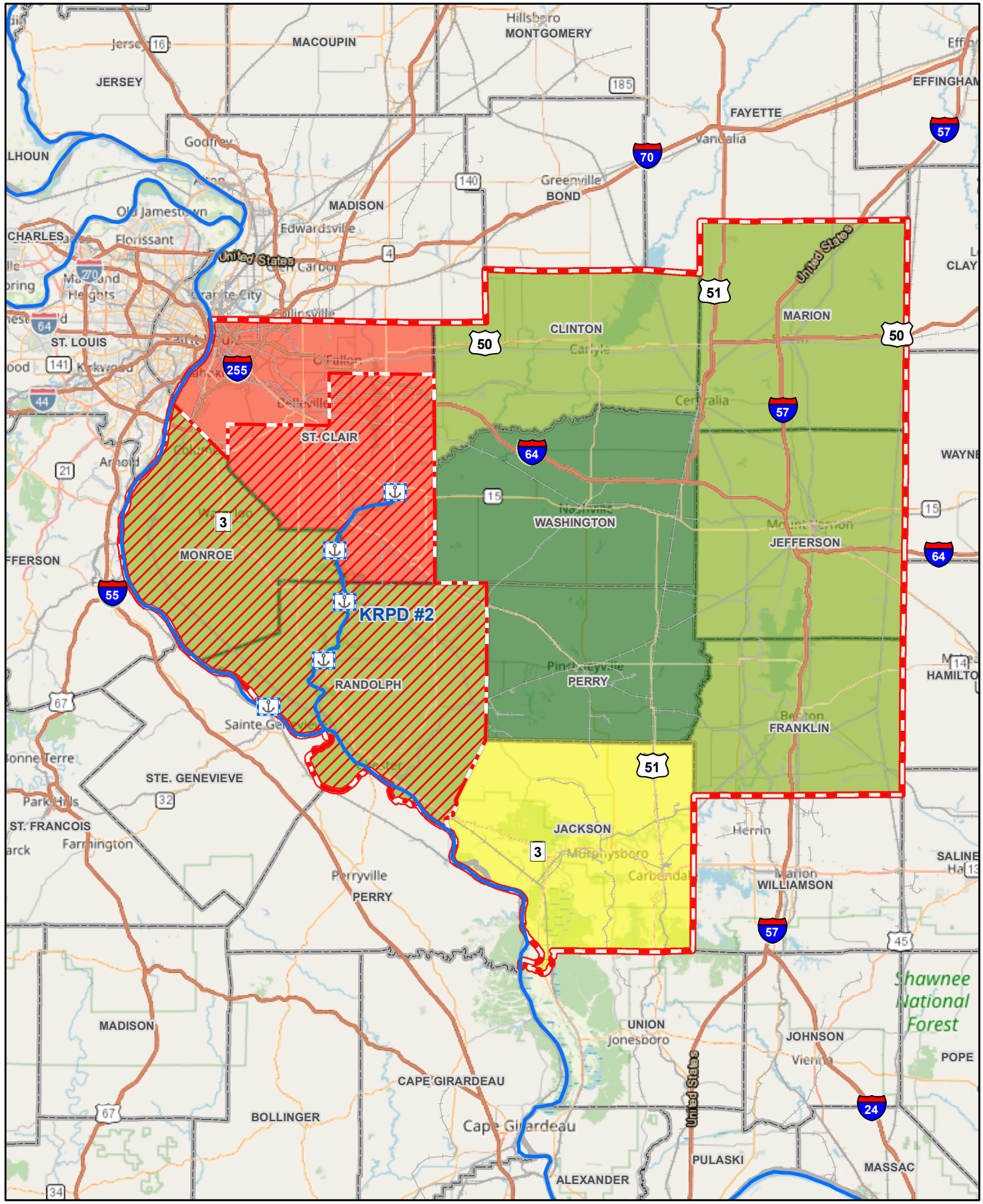
Boundary
- State
- County
- KRPD Market
- KRPD Boundary

- Port Authority
- KRPD Facilities
- Railroad
- US Interstate Highway
- Navigable Waterway

EXHIBIT 8-1:
KASKASKIA REGIONAL PORT DISTRICT
Primary Market Area for KRPD #2

30 Miles

N



Boundary
- State
- County
- KRPD Boundary
- KRPD Market

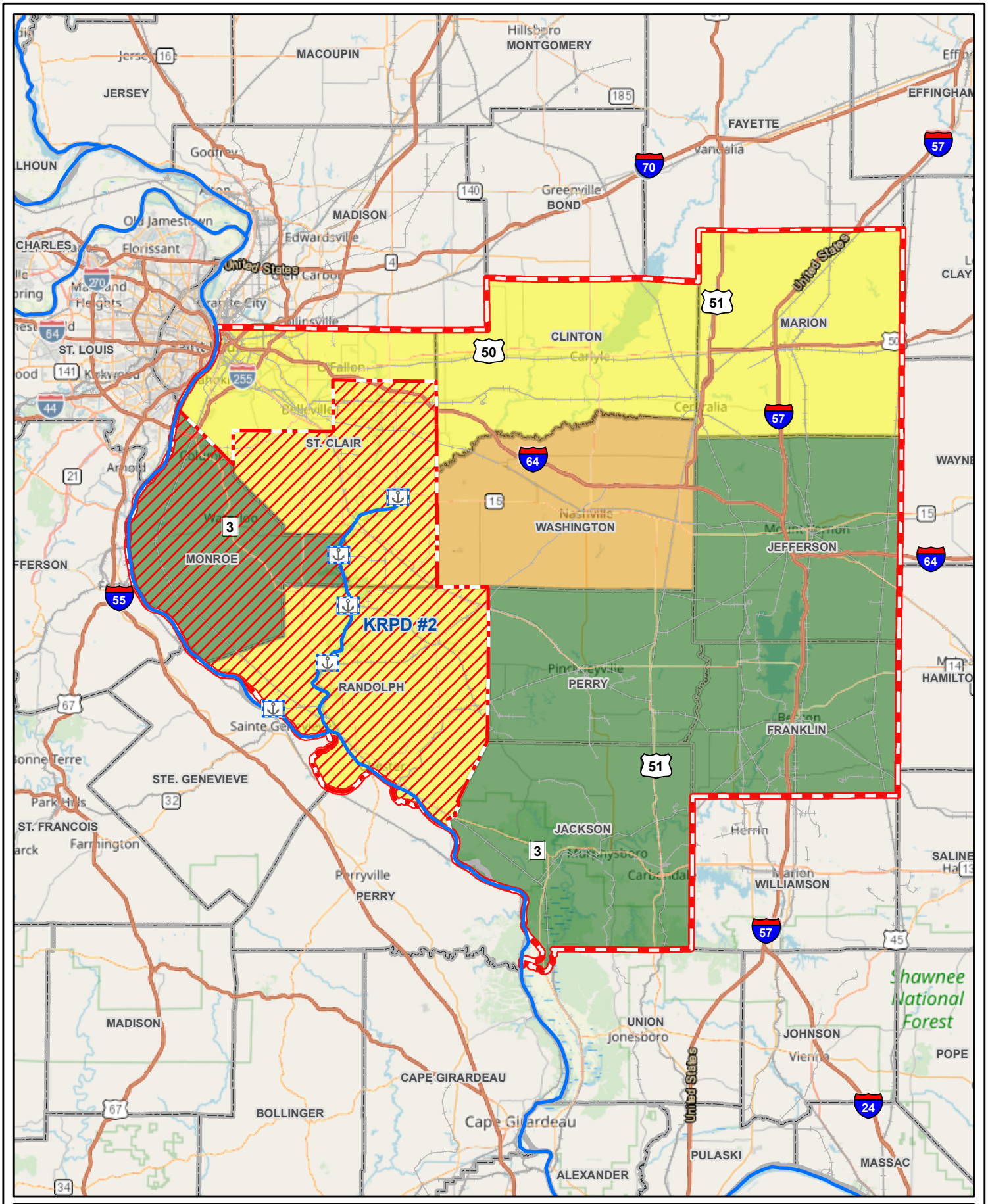
Population (x1000)
- 0 - 29
- 30 - 59
- 60 - 99
- 100 - 199
- 200 - 299

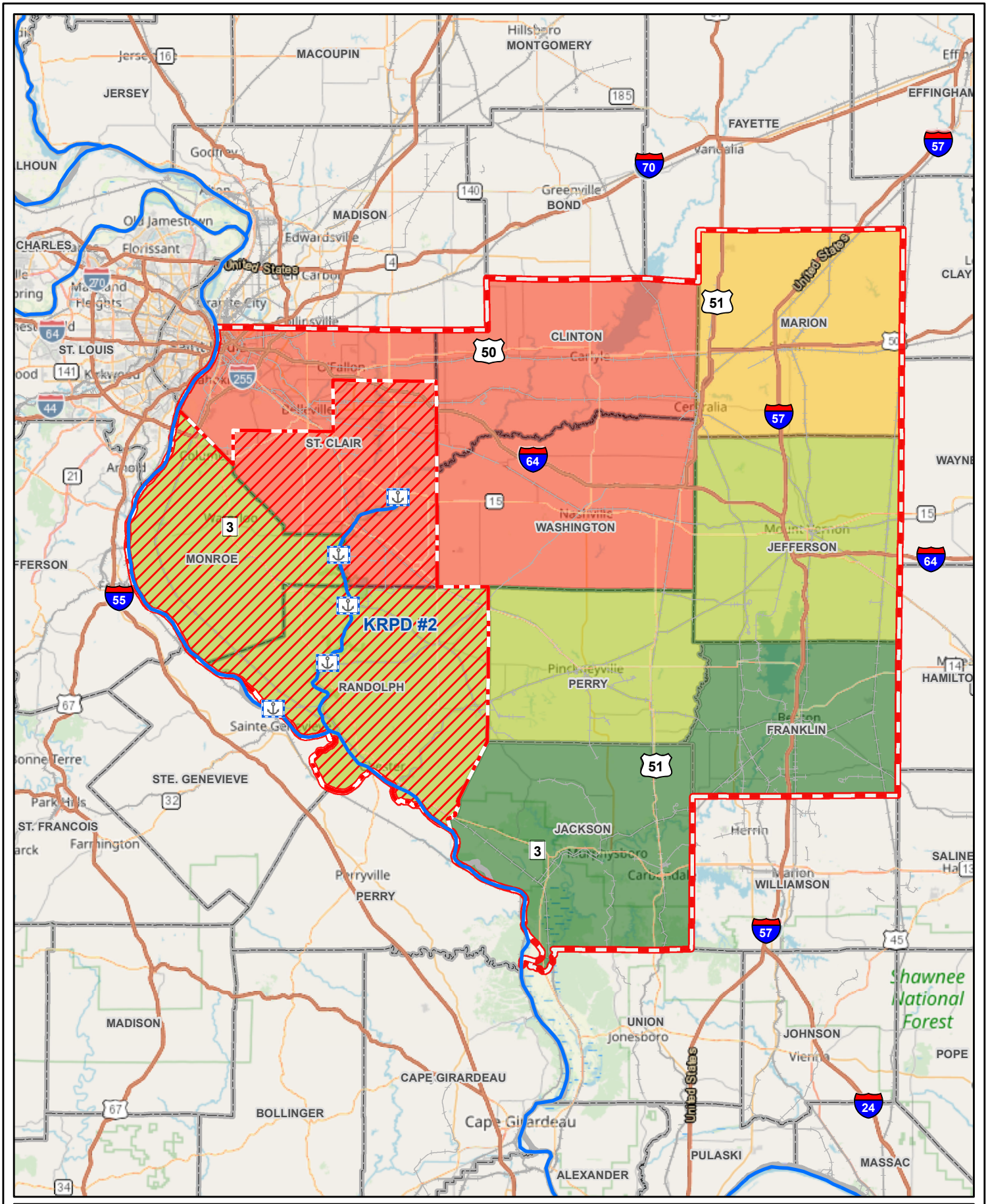
- KRPD Facilities
- Navigable Waterway

EXHIBIT 8-2:
KASKASKIA REGIONAL PORT DISTRICT
Population Distribution in the KRPD #2 Market Area
Based on 2010 U.S. Census Data

25 Miles

N


MACOUPIN
Hillsboro
MONTGOMERY
JERSEY
EFFINGHAM
FAYETTE
Greenville
BOND
MADISON
Edwardsville
CHARLES
Florissant
ST. LOUIS
CLINTON
Carlyle
MARION
ST. CLAIR
Belleville
O'Fallon
Centralia
WASHINGTON
Nashville
JEFFERSON
MONROE
KRPD #2
RANDOLPH
Sainte Genevieve
PERRY
Pinckneyville
FRANKLIN
STE. GENEVIEVE
Park Hills
ST. FRANCOIS
Farmington
JACKSON
Carbondale
Herrin
Marion
WILLIAMSON
Perryville
PERRY
Shawnee National Forest
MADISON
UNION
Jonesboro
JOHNSON
Vienna
POPE
CAPE GIRARDEAU
Cape Girardeau
BOLLINGER
PULASKI
MASSAC
ALEXANDER
United States
70
57
51
50
64
55
3
24
Boundary
State
County
KRPD Boundary
KRPD Market
Soybean Production (Bu)
4 - 6 Million
6 - 9 Million
Over 9 Million
KRPD Facilities
Navigable Waterway
EXHIBIT 8-3:
KASKASKIA REGIONAL PORT DISTRICT
Soybean Production by County in the KRPD #2 Market Area
25
Miles
N



Boundary
- State
- County
- KRPD Boundary
- KRPD Market

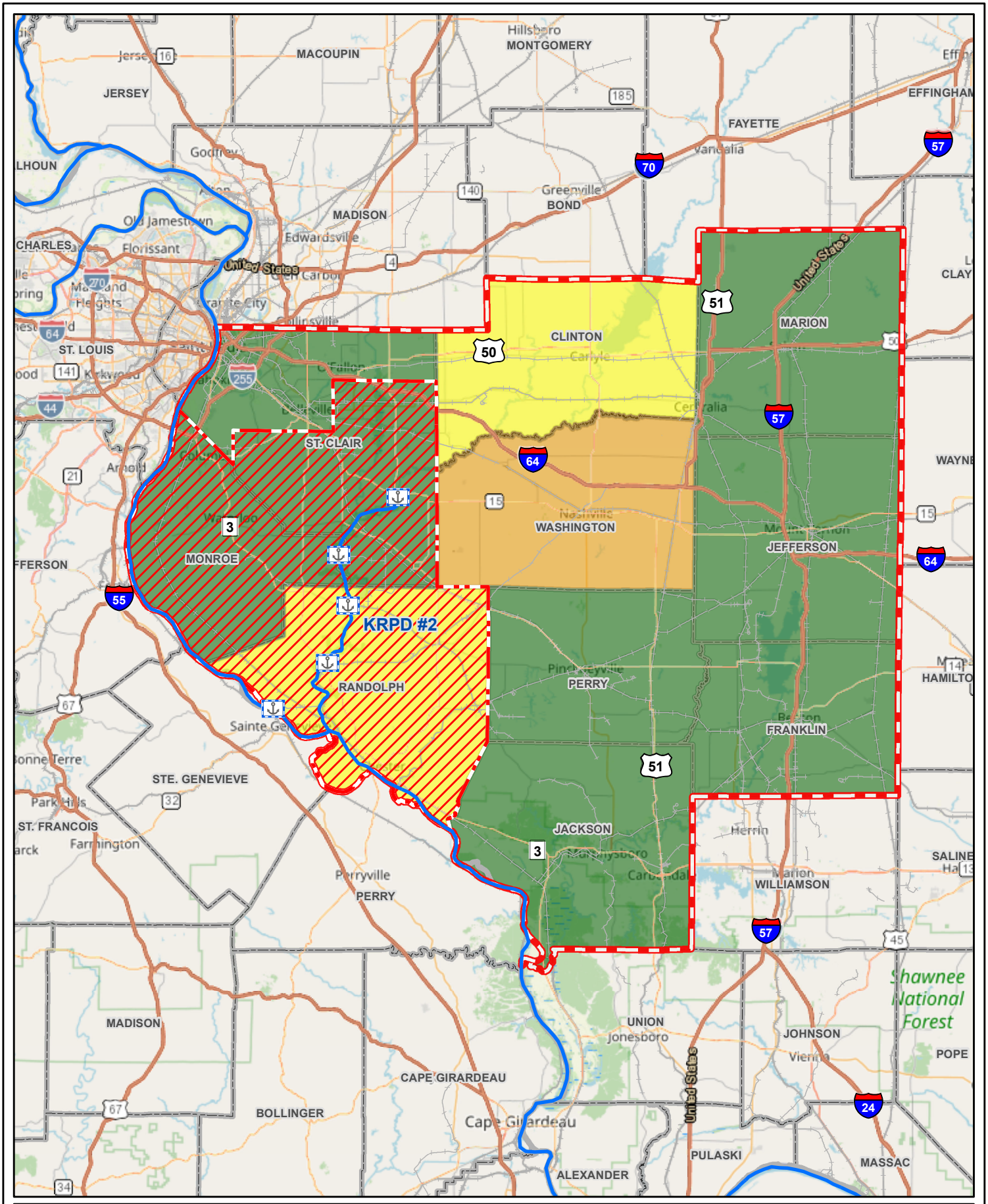
Corn Production (Bu)
- Under 5 Million
- 5 - 10 Million
- 10 - 15 Million
- Over 15 Million

- KRPD Facilities
- Navigable Waterway

EXHIBIT 8-4:
KASKASKIA REGIONAL PORT DISTRICT
Corn Production by County in the KRPD #2 Market Area

25 Miles

N



Boundary
- State
- County
- KRPD Boundary
- KRPD Market

Wheat Production (Bu)
- 0.9 - 2 Million
- 2 - 4 Million
- Over 4 Million

- KRPD Facilities
- Navigable Waterway

EXHIBIT 8-5:
KASKASKIA REGIONAL PORT DISTRICT
Wheat Production by County in the KRPD #2 Market Area

25 Miles

N

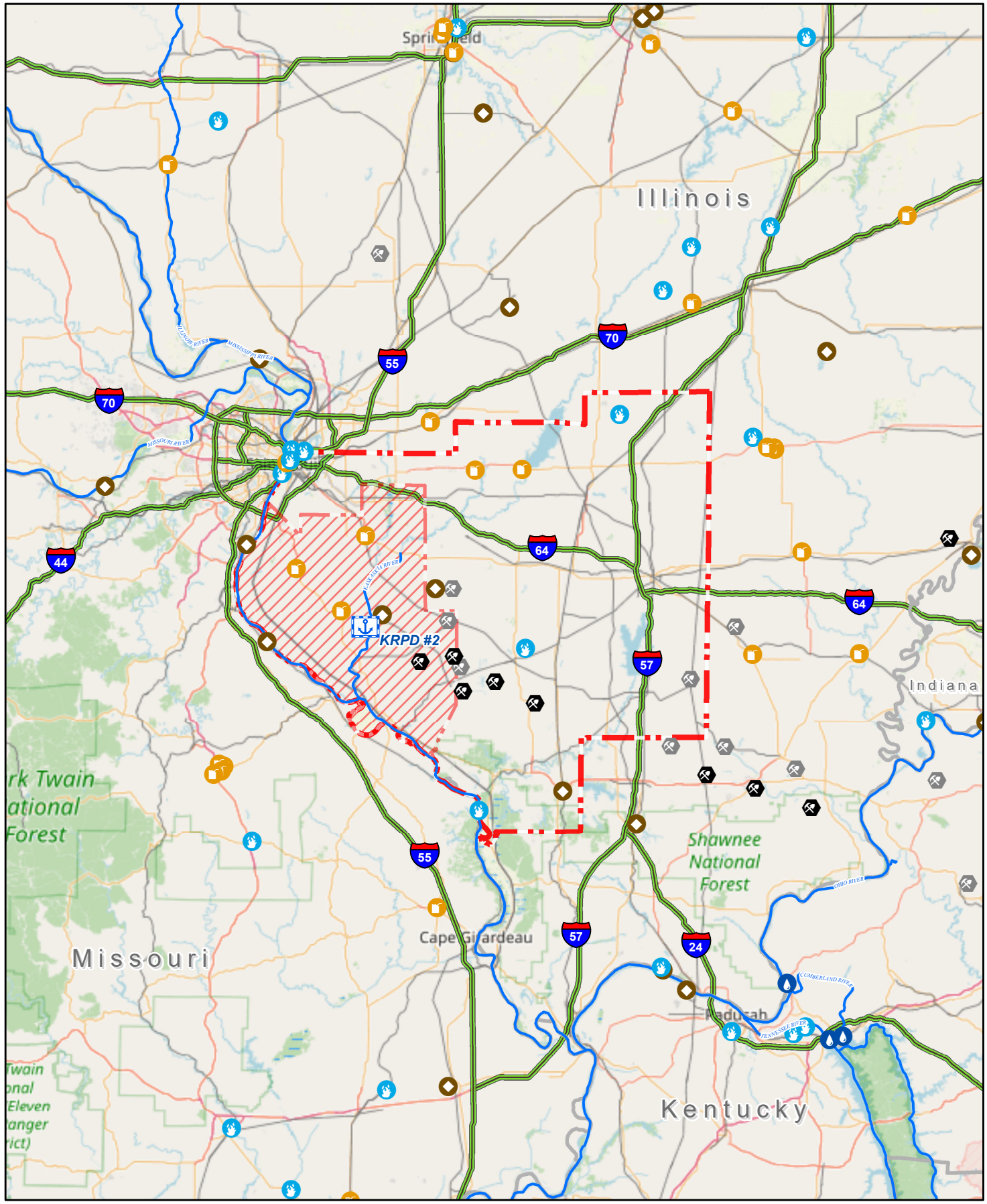
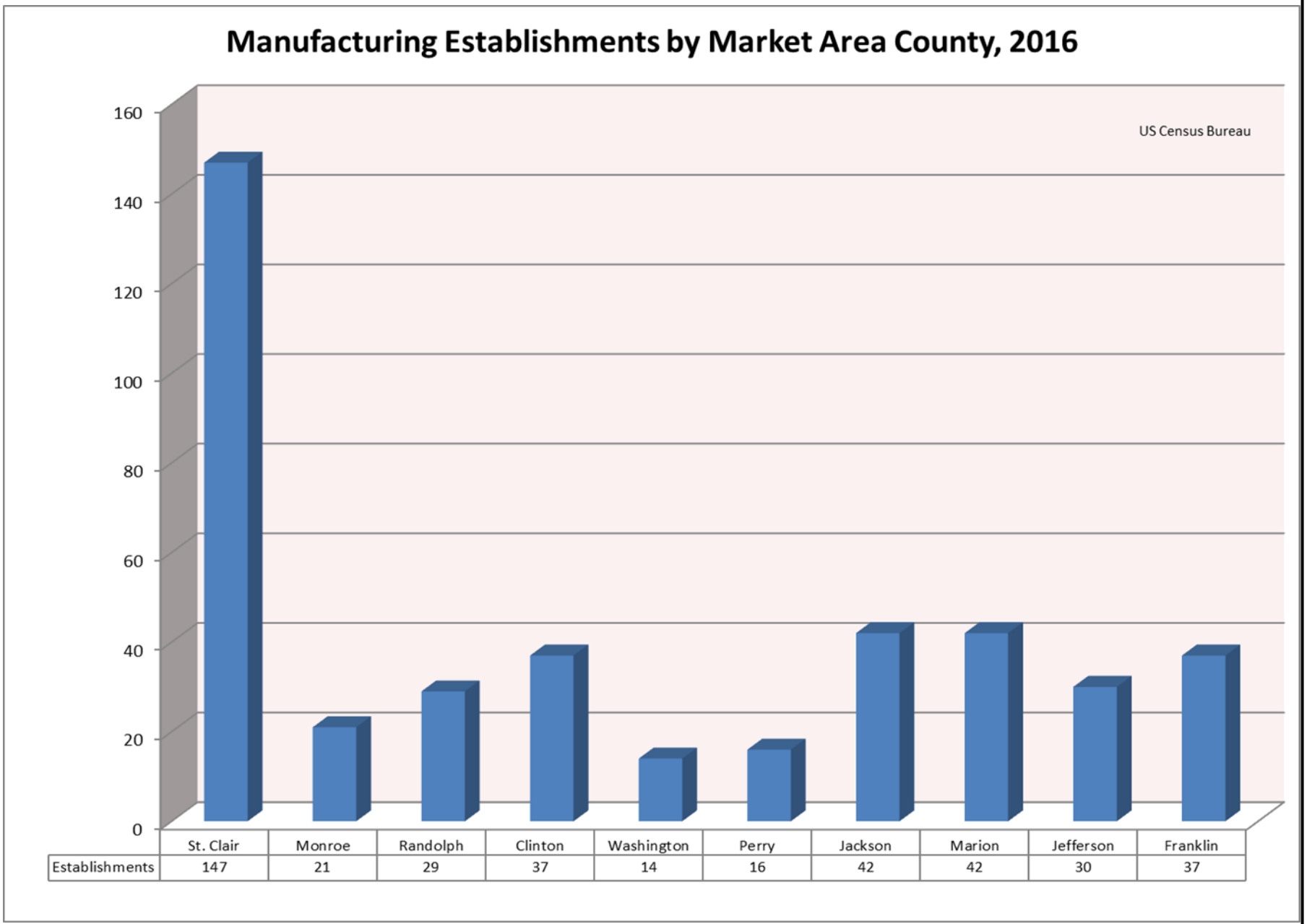


EXHIBIT 8-6:
KASKASKIA REGIONAL PORT DISTRICT
Mines and Power Plants in the KRPD #2 Market Area

EXHIBIT 8-7:
KASKASKIA REGIONAL PORT DISTRICT
Manufacturing Establishments by Market Area County, 2016



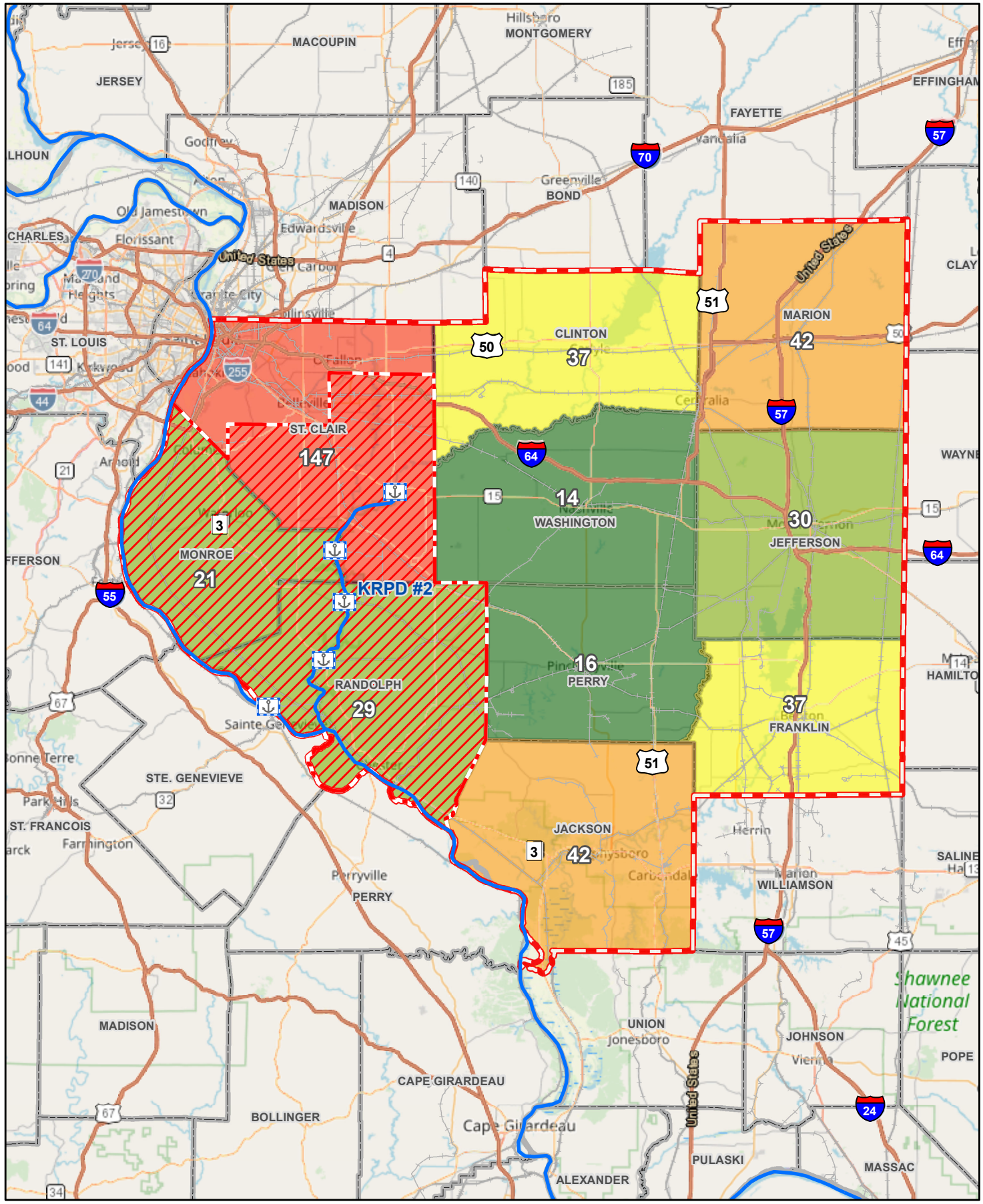
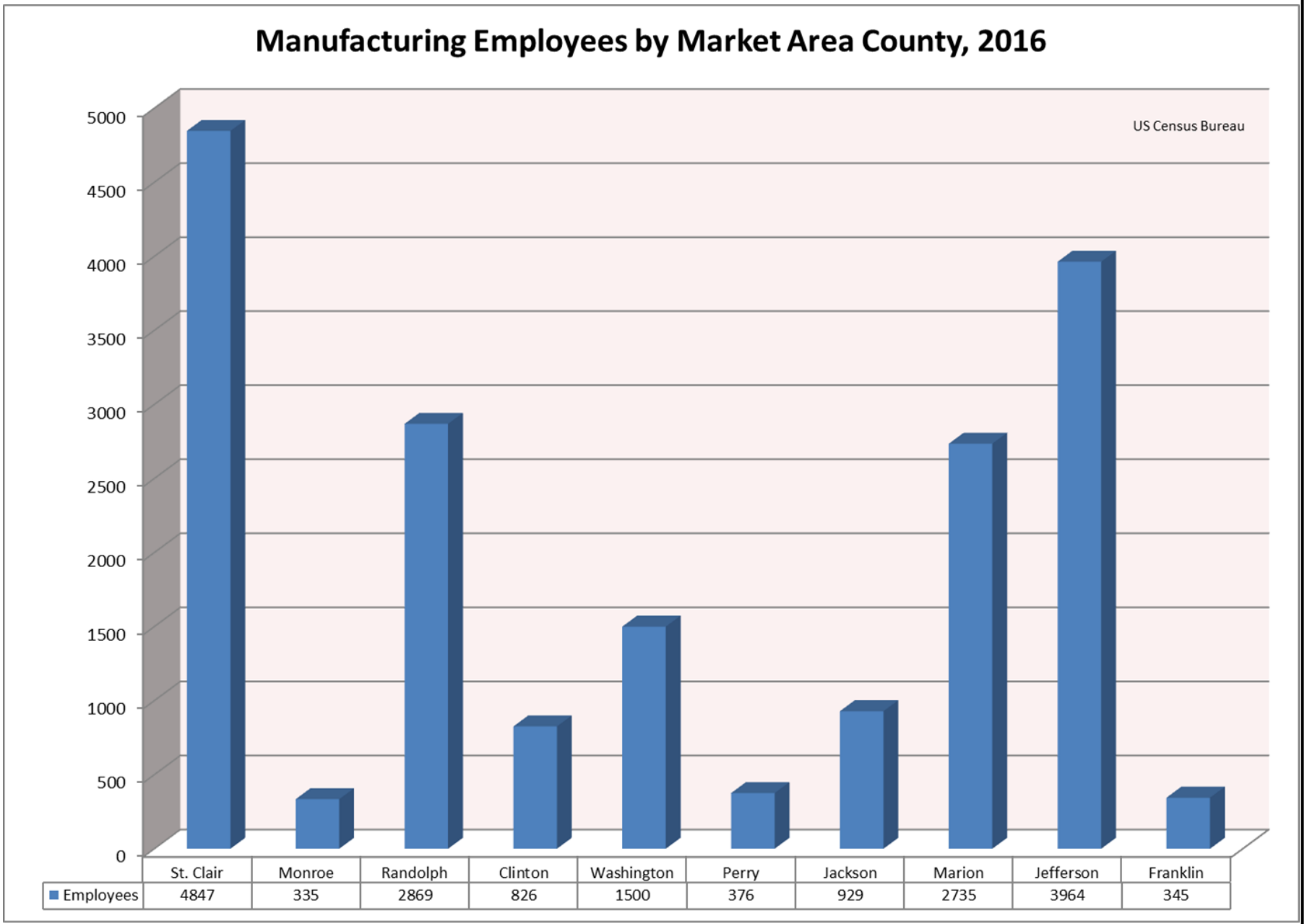


EXHIBIT 8-8:

KASKASKIA REGIONAL PORT DISTRICT

Manufacturing Establishments in the KRPD #2 Market Area

EXHIBIT 8-9:
KASKASKIA REGIONAL PORT DISTRICT
Manufacturing Employees by Market Area County, 2016



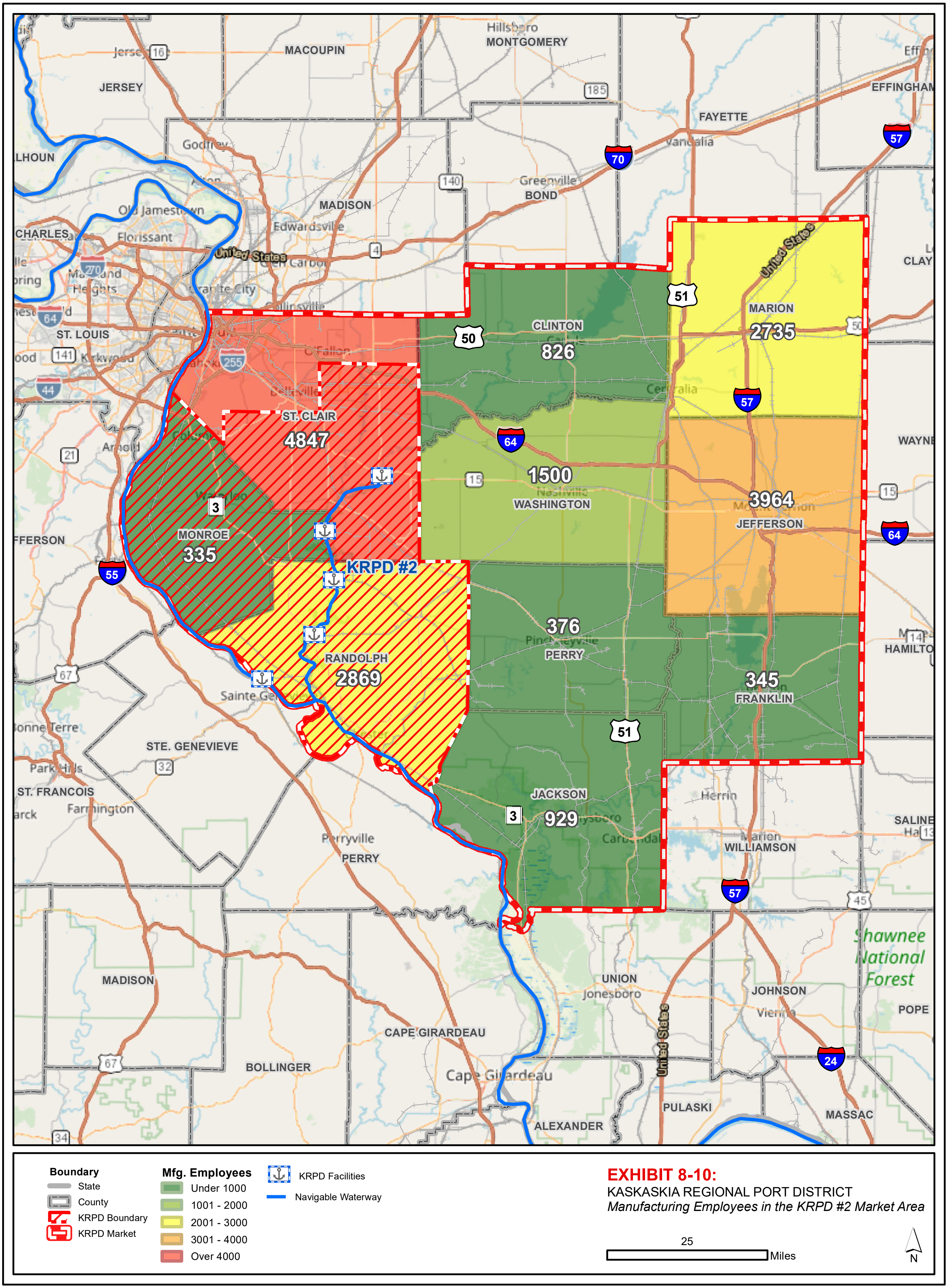


EXHIBIT 8-10:
KASKASKIA REGIONAL PORT DISTRICT
Manufacturing Employees in the KRPD #2 Market Area

9. Development of Responsive Planning Criteria

Master planning criteria is developed from an understanding of existing conditions, an assessment of market conditions and understanding the goals and objectives of KRPD.

9.1. Considerations for River Access

There are two major components of planning criteria for river access:

(a) maintaining and improving access via the Kaskaskia River navigation system, and
(b) on-site improvements at KRPD#2.

Planning criteria for river access:

(a) River Access – work with the St. Louis District on maintaining and improving reliable navigation access, for providing a deeper navigable channel consistent with Lower Mississippi River waterborne transport practices.
(b) On-Site Improvements – provide capability for receiving shipments of bulk liquids, and improve capability and capacity for dry bulk transfer.

Challenges for river access:

(a) Acknowledge and understand the USACE process for funding and
(b) Obtaining funding in context of limited resources and national priorities.

Challenges for On-Site Improvements:

(a) Existing infrastructure, land uses and land-side traffic patterns,
(b) Terrain and possibly property ownerships, and
(c) Lack of hydrographic survey and geotechnical information.

Opportunities:

(a) Improve reliability for river access,
(b) Improve capability to support local agricultural productivity,
(c) Relieve internal roadway congestion during busy periods, and
(d) Create capacity for future dry bulk transfer opportunities.

River improvements require significant lead time for planning and permitting.

9.2. Considerations for Rail Improvements

Daily rail capacity at KRPD#2 is limited by the length of track between the CN switch and SR 154. CN provides service from its Centralia yard only once or twice per week.

Planning criteria for rail improvements:

(a) increase capacity for the volume of rail cars that can be delivered in each switch,
(b) improve the efficiency of rail movements after cars are delivered, and
(c) reduce conflicts with trucks and other port operations.

Challenges for rail improvements:

(a) existing traffic patterns,
(b) location of existing rail infrastructure relative to other structures, and
(c) terrain and property ownerships.

Opportunities:

(a) improved operational efficiencies,
(b) improved rail capacity, and
(c) providing opportunities for future business.

9.3. Considerations for Roadway Improvements

Issues have been noted due to traffic patterns and surges in business volumes.

Planning criteria for roadway improvements:

(a) Improve traffic flow,
(b) Reduce congestion during surges in business,
(c) Provide truck queueing areas for TMW which do not hinder other operations,
(d) Provide access to future industrial sites at or near KRPD#2, and
(e) Provide alternative access to SR 154.

Challenges for roadway improvements:

(a) Locations of existing buildings and infrastructure,
(b) Terrain, site and property ownerships,
(c) Existing traffic patterns,
(d) Efficiently serving needs of diverse tenants, and
(e) Site distances due to grades on SR 154.

Opportunities for roadway improvements:

(a) Improving efficiencies for all KRPD#2 users,
(b) Increasing KRPD#2 capacities and capabilities, and
(c) Contributing to development of sites for new industries.

9.4. Considerations for Other Site Improvements

Additional planning criteria responsive to markets and KRPD objectives are described below.

Planning criteria for Other Site Improvements:

(a) Provide strategies for long term solutions to drainage and environmental mitigation and
(b) Provide readily developable sites for future industries and KRPD#2 users.

Challenges for other site improvements:

(a) Property ownerships,
(b) Existing land uses, and
(c) Environmental, terrain and site conditions.

Opportunities:

(a) Benefits to the local and regional economies and
(b) Create opportunities for future business at KRPD#2.

10. Alternatives for Future Development

Alternatives responsive to planning criteria have been developed and are presented below for consideration and further analysis.

10.1. Navigable Access to KRPD#2

During 2019, sustained periods of above average rainfall resulted in flooding throughout much of the US, and also caused disruptions in river traffic. The Missouri River, Illinois River, Upper Mississippi River and Kaskaskia River, as well as other river systems downstream from the Kaskaskia, all experienced extreme high water which, in some cases, temporarily shut down navigation. KRPD leaders worked with partners in the USACE St. Louis District to develop and implement creative approaches to reducing the number of days the Kaskaskia River was closed.

Nurturing this close cooperative relationship between KRPD and USACE St. Louis should result in improved operating procedures aimed at lessening future delays. For example, the September 2, 2019, *Waterways Journal* reports "…a recent study by the Corps further determined that it is feasible to modify the lock arms and operate at 382.96 feet without additional manpower." The recommended modifications require a $1.5 million investment which would replace the 40-year old lock arms with new ones designed to operate safely in the higher river elevations.

On the Mississippi River south of St. Louis, barges are often loaded to drafts greater than 9 feet, increasing the carrying capacity and thus the efficiency of each barge. KRPD may consider working with its congressional delegation to request funding for a USACE study to evaluate the feasibility for increasing the authorized navigable depth of the Kaskaskia River. This is the first step in the multi-year process.

10.2. Development of a New Barge Dock

In addition to off-site navigation access improvements, options for improving on-site river access have also been considered. There is demand for liquid fertilizer such as UAN which is used for corn, wheat

and other grass crops. Additionally, SITCO has also been successful in obtaining dry bulk loading contracts. Alternative sites have been considered for liquid and dry bulk transfer operations.

Exhibit 10-1 shows two alternative locations for liquid bulk transfer:

- Alternative River-1 is upstream from the overhead bridge crane,
- Alternative River -2 is downstream from the existing bulk dock.

In comparing the two options, factors such as barge access, truck access, long range potential, versatility, constructability and environmental challenges have been considered.

Exhibit 10-2 shows Alternative River-1, and ***Exhibit 10-3*** shows Alternative River-2. The shallow water, evidenced by small islands and trees, would add cost and probable environmental challenges to River-1. Detailed hydrographic survey information is needed to quantify the comparative analysis but, subjectively, River-2 is adjacent to the existing navigation route and would seem to be a better location from a river access perspective. River-1 is located closed to the existing fertilizer distribution complex operated by Gateway FS, but truck access is usually intense during fertilizer season and the location at River-2 would likely cause less congestion for fertilizer and less potential interference with other KRPD#2 operations. New storage tanks would be needed at either location.

Depending on location, terrain and access, it is possible to construct a dry bulk transfer operation using the same mooring structures as the liquid bulk dock. Truck traffic congestion would likely rule out this option at River-1, but would be feasible at River-2.

In summary, after consideration of many factors, River-2 is the better location for a new dock considering river access, truck access, versatility, the likelihood of fewer environmental issues, less dredging required and lower anticipated construction cost. River-2 provides the potential for liquid bulk, dry bulk, and possibly for cargo depending on the type of dock constructed. ***Exhibit 10-4*** shows the potential footprint for a sheet pile dock which could support liquid bulk, dry bulk and general cargo operations. Detailed decisions on dock type, construction materials and other details can be made once adequate geotechnical and hydrographic survey information is available. Such information is not available at this time and is beyond the scope of work for this Master Plan.

The property immediately south of and adjoining the proposed third dock location is privately owned except for the riverbank and a strip of land along the top of the riverbank which leads to a larger parcel of KRPD owned land further south. This area to the far southern tip of KRPD land could have long-term future use for a roll-on, roll-off dock or a low water wharf. Details require further study which is beyond the scope of this current Master Plan.

10.3. Rail Improvement Options

As discussed in Chapter 6, rail capacity at KRPD-2 is limited by the configuration of existing rail infrastructure as well as frequency of service by CN. Rail volumes are expected to increase based on steel demand at TMW, potential demand for fertilizers and other commodities. The 2018 KRPD#1 report and discussions with KRPD officials indicate optimism for potential bulk transfers. There is also the need to create sites for industries which use barge and rail to locate at KRPD#2. Options for rail improvements are responsive to the criteria stated in Chapter 9.

Rail options are developed considering existing track geometry, CN requirements and criteria, existing infrastructure at KRPD-2, ongoing port operations, and terrain. Major elements of the options considered include considerations for:

- improving rail capacity and efficiency,
- creating sites for future transportation-intensive industries, and
- providing capability for efficient cargo transfer as well as rail to barge bulk transfer operations.

First, to address the issue of improving capacity and efficiency, ***Exhibit 10-5***, provides a small rail yard which increases capacity for storage of larger numbers of rail cars delivered by CN, staging for cars to be picked up by the CN, and a run-around track to facilitate operations. The track nearest SR 154 would also be available for construction of individual sidings to future industrial sites between the rail yard and SR 154. ***Exhibit 10-6*** illustrates the potential for construction of a KRPD lead track to future industrial sites north of the primary rail corridor, to facilitate construction of sidings by individual industries located there.

Once rail cars are moved onto the existing KRPD#2 site, the goal is to provide efficient transfer operations while minimizing potential conflicts with other on-site operations and truck access. Steel

coils will necessarily be offloaded under the overhead bridge crane. As volumes increase, space for a storage yard for rail cars is provided just south of the loop road as shown in ***Exhibit 10-7***. Should opportunities for rail-to-barge dry bulk transfer evolve, space has been reserved for rail car storage, operations and a bottom-dump transfer building. Given the requirements for rail curves, grade changes and other relatively constraining factors of rail infrastructure design, it is important to acknowledge these requirements and set aside land which is needed so that future rail options are not inadvertently constrained by other development.

10.4. Roadway Improvement Options

During the past few years, truck traffic congestion has reduced efficiency of port operations for KRPD#2 occupants and customers. One pinch point in traffic flow is reported to be the relatively narrow passage under the overhead bridge crane where truck movements can be in conflict with use of the bridge crane. This is both an efficiency issue and a safety issue. Several options have been considered to address these concerns and provide more productive, safer traffic patterns, as shown on ***Exhibit 10-8***.

The first alternative considered is shown in green and labeled Road Option A. It includes a deceleration lane along SR 154 and a new on-site road near the western boundary of the Gateway FS property, connecting with the existing loop road near the northwest corner of the TMW site. Other than the deceleration lane, all land needed for this option is currently owned by KRPD. Road Option A provides truck access to TMW from this new roadway, and traffic signage should be provided to direct trucks to exit the KRPD#2 site via the existing connection to SR 154 due to the hill just west of the new entry point which limits sight distances. Truck access to/from Gateway FS would not change. Trucks transporting dry bulk to SITCO for transfer to barge would enter via the new road and thence along the existing loop road to the existing bulk transfer dock or to the third dock south of the rail tracks. Passage under the bridge crane would be restricted to crane operations.

Road Option B provides a new access road intersecting SR 154 closer the top of the hill on SR 154, and following a route more or less parallel to the western KRPD#2 property line before turning east and intersecting the existing loop road near the northwest corner of the TMW site, all on land now owned by KRPD. Option B can also be extended to provide an access road running around the west end of the on-

site future south rail corridor, and providing access to the third dock area without crossing any rail tracks. If the drainageway could be relocated to the western edge of the Gateway FS site, Road Option B also provides good access to a site which could be developed for future economic development opportunities.

Road Option C uses a portion of Griggs Road for access to SR 154, and turns south to intersect the existing KRPD#2 loop road near the northwest corner of the TMW site, with some land acquisition required east of Griggs Road. This option could incorporate a portion of Option B to provide access to the third dock by running around the western end of the rail corridor. Road Option D uses a more significant length of Griggs Road, with an intersection far enough south of SR 154 to allow access to the third dock without crossing the rail corridor.

Factors such as length of road required (and related costs), land ownership, terrain, etc., have been considered. Road Options A is recommended for implementation.

10.5. Options for Other On-Site Port Operations Improvements

Operations areas adjacent to barge transfer locations are needed to stage and possibly to store general cargo, hot-rolled steel coils, fabricated steel items, large objects and containers. The area south of the TMW and SITCO operations, as shown in ***Exhibit 10-9***, is the only viable location for near-term development of a new port operations area. A hardstand port operations area would provide support for storage of large heavy objects like steel coils, fabricated steel items, containers, etc., and must support loads from materials handling equipment with intense axel loads, cranes and heavy trucks. This typically requires site improvements to address grades, drainage and geotechnical conditions, and to provide a suitable wearing surface for heavy equipment. The end result should be a versatile operations area to support expanded business opportunities at KRPD#2. Most of this area is owned by KRPD. A portion has been leased to TMW. A portion was sold to SITCO.

The initial step in development of the port operations area is filling the site to an appropriate grade with compacted engineered fill. The next step is placement and compaction of appropriately sized layers of

rock. A geotextile fabric is often used as well. More detailed surveying and geotechnical information is needed for design.

As part of the on-site roadway improvements, Exhibit 10-9 shows a new truck scale and scale house. The truck scale is shown for planning purposes only at this time. Implementation would be linked to future demand for dry bulk commodities. Options for location of new scales and scale house to compliment the future bulk dock and to provide efficient traffic flow are limited. Future development of other facilities at KRPD#2 should consider this proposed location for the truck scales, so the potential is not accidentally limited.

10.6. Options for Development of Sites for New Port Users

Opportunities for ready-to-build economic development sites are shown in ***Exhibit 10-10***. The areas owned by KRPD west of Gateway FS and TMW, labeled Sites A and B, would provide approximately 23 acres for developing a site or sites for new barge and rail using industries, potentially adding jobs and tax base to the local economy as well as providing new customers for KRPD services. The location has frontage on SR 154 for visibility, and is accessible from the proposed new access road. Work will be required to obtain permission from environmental authorities for realigning the drainage feature which flows through the site, if that is possible. With reference to Exhibit 10-10, a preliminary analysis based on information available to date indicates there is sufficient borrow material within what is labeled as Site B to fill both Site A and the Port Operations Area to above the 100-year flood elevation.

Sites C, D, E and F are north of SR154 and south of the rail corridor. All of sites C and D and part of Site E are owned by KRPD. Part of Site E and all of Site F would need to be acquired. Once acquired and consolidated, some grading work would be required, but anticipated earthwork for these four sites appears to be much less than for sites A and B. The suggested lot line between Sites C and D would be the rail corridor, and between D and E would run along the drainage feature. The sites will have access to rail once the south run-around track is constructed, and individual industries could construct their own rail sidings off of this proposed KRPD track. Collectively, sites C, D, E and F provide almost 42 acres of land which could be developed as sites for prospective KRPD#2 barge and rail users, with additional goals of adding jobs and tax base to the local economy.

Sites G and H are north of the rail corridor on land now owned by IDNR. Site G is accessible from Griggs Road. A new access road off of Griggs Road would be needed for Site H, if these two tracts were used by different entities. Once KRPD constructs the lead track from the rail yard area, each industry could build its own siding. The sites could also be combined if needed for a larger industry. Collectively, Sites G and H occupy over 46 acres.

Other options have also been considered along Griggs Road south of SR 154, but are not thought to be as readily developable as sites A through H as described above.

ALTERNATIVE LOCATIONS FOR LIQUID BULK TRANSFER

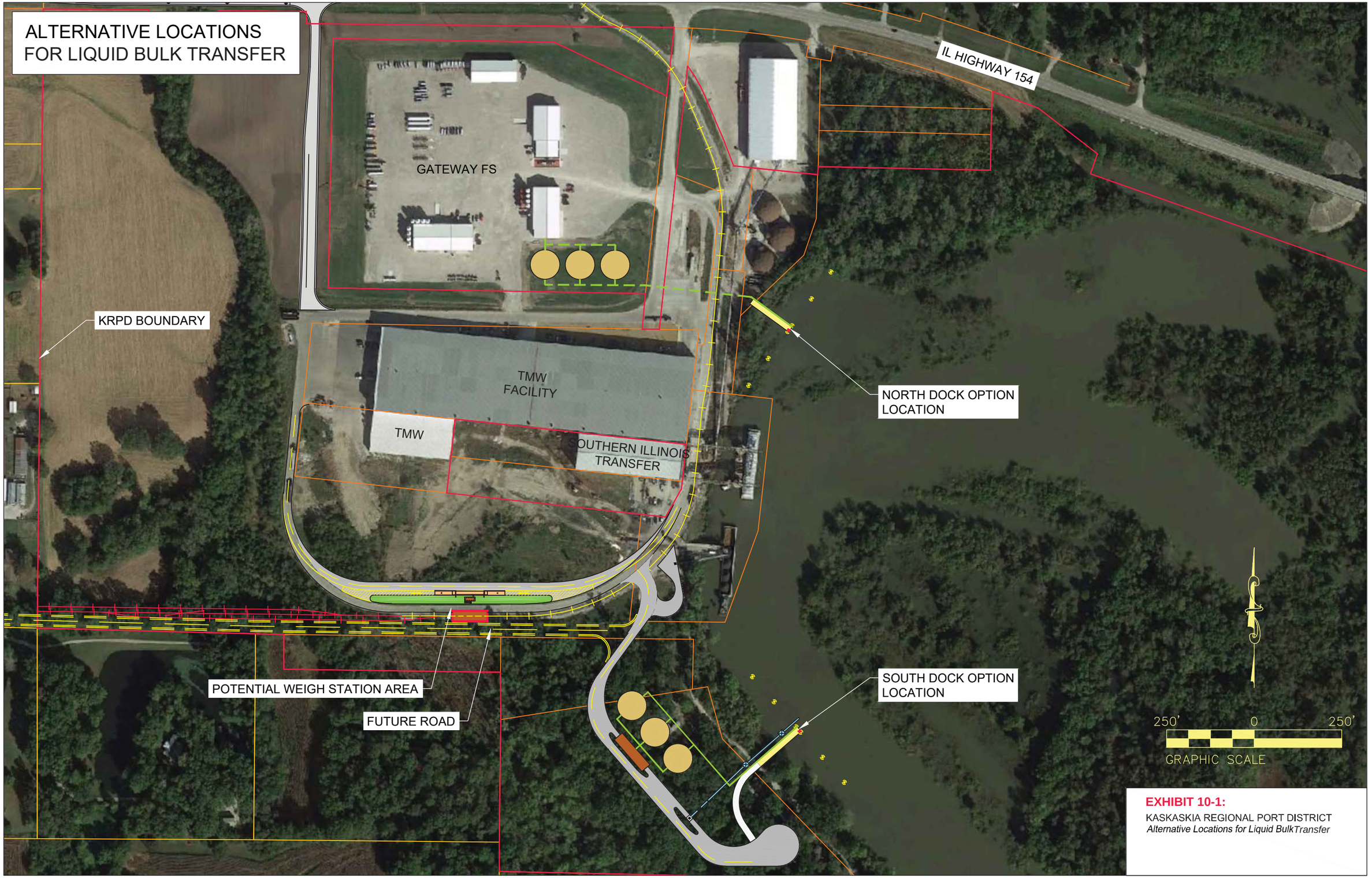


EXHIBIT 10-1:

KASKASKIA REGIONAL PORT DISTRICT

Alternative Locations for Liquid BulkTransfer

NORTH DOCK OPTION -
LIQUID TRANSFER FACILITY

LIQUID STORAGE 84'Ø

LIQUID STORAGE 84'Ø

LIQUID STORAGE 84'Ø

OVERHEAD AND/OR UNDERGROUND PIPING

DOCK

DAVIT CRANE

390

380

370

410

400

100' 0 100'

GRAPHIC SCALE

BARGE DOCK LOCATION TO BE DETERMINED BY RIVER BANK CONTOURS, UNDERWATER RIVER CONTOURS, AND SPACE REQUIRED FOR BARGE OPERATIONS. A HYDROGRAPHIC SURVEY IS NEEDED TO RATIONALIZE THE APPROXIMATE LOCATION.

EXHIBIT 10-2:

KASKASKIA REGIONAL PORT DISTRICT

Alternative River-1: Upstream from Existing Docks

SOUTH OPTION -
PLATFORM DOCK / DUMP PIT /
AND LIQUID TRANSFER FACILITY

FUTURE TRUCK SCALE

FUTURE ROADWAY

LIQUID STORAGE 84'Ø

LIQUID STORAGE 84'Ø

LIQUID STORAGE 84'Ø

LIQUID PIPING

LIQUID TRANSFER BLDG 30' X 120'

DUMP PIT

CONVEYOR

DOCK

DAVIT CRANE

MAINTENANCE ROAD

400

390

380

370

100' 0 100'

GRAPHIC SCALE

BARGE DOCK LOCATION TO BE DETERMINED BY RIVER BANK CONTOURS, UNDERWATER RIVER CONTOURS, AND SPACE REQUIRED FOR BARGE OPERATIONS. A HYDROGRAPHIC SURVEY IS NEEDED TO RATIONALIZE THE APPROXIMATE LOCATION.

EXHIBIT 10-3:

KASKASKIA REGIONAL PORT DISTRICT

Alternative River-2: Downstream from Existing Docks

SOUTH OPTION - SHEET PILE DOCK / DUMP PIT / AND LIQUID TRANSFER FACILITY

400
400
TRUCK SCALE
POTENTIAL RAIL DUMP PIT
FUTURE ROADWAY
390
380
380
390
LIQUID STORAGE 84'Ø
LIQUID STORAGE 84'Ø
LIQUID STORAGE 84'Ø
LIQUID PIPING
LIQUID TRANSFER BLDG 30' X 120'
CONVEYOR
380
390
370
370
370
370
100' 0 100'
GRAPHIC SCALE
STEEL GUARD RAIL
SHEET PILE DOCK
GRAVEL AREA
STEEL GUARD RAIL

BARGE DOCK LOCATION TO BE DETERMINED BY RIVER BANK CONTOURS, UNDERWATER RIVER CONTOURS, AND SPACE REQUIRED FOR BARGE OPERATIONS. A HYDROGRAPHIC SURVEY IS NEEDED TO RATIONALIZE THE APPROXIMATE LOCATION.

EXHIBIT 10-4:

KASKASKIA REGIONAL PORT DISTRICT

Sheet Pile Dock Option at Location River-2

SITE G
24.9± AC.

SITE H
21.2± AC.

GOETTING
FARMS

IDNR
NORTHWEST
PROPERTY

IDNR
NORTHEAST
PROPERTY

SPUR TO FUTURE TENANT TRACK

NEW BARRY
ROAD CROSSING

BARRY ROAD

STORAGE TRACK NO. 1

STORAGE TRACK NO. 2

STORAGE TRACK NO. 3

STORAGE TRACK NO. 4

STORAGE TRACK NO. 5

LADDER/RUNAROUND TRACK

SPUR TO FUTURE TENANT TRACK

6.98 ACRES+/-
100' WIDE
RIPARIAN CORRIDOR

SPUR TO FUTURE TENANT TRACK

TO BALDWIN, IL

EXISTING
TRACK

19 ACRES+/-
GOETTING FARMS PROPERTY

18 ACRES+/-
KASKASKIA PORT DISTRICT PROPERTY

SITE F
13.5± AC.

SITE E
10.9± AC.

SITE D
11.3± AC.

SITE C
5.3± AC.

CRIGGS ROAD

IL HIGHWAY 154

TO LOADING
& UNLOADING
FACILITIES

N

200’ 0 200’

GRAPHIC SCALE

LEGEND

- NEW YARD TRACK CONSTRUCTION
- EXISTING TRACKS
- RAILWAY ACCESS ROAD
- PROPERTY LINES (EXISTING)
- RECOMMENDED DEVELOPMENT SITES
- CENTERLINE OF DITCH
- EXISTING KRPD BOUNDARY

EXHIBIT 10-5:

KASKASKIA REGIONAL PORT DISTRICT

Options for Rail Yard Improvements

FUTURE ROW

FUTURE RAIL SPUR BY OTHERS

FUTURE RAIL SPUR BY OTHERS

IDNR

SITE G
24.9± AC.

IDNR

SITE H
21.2± AC.

GRIGGS ROAD

GOETTING
FARMS

NEW BARRY
ROAD CROSSING

N

240’ 0 240’

GRAPHIC SCALE

FUTURE RAIL SPUR
BY OTHERS

NEW RAIL YARD

100' WIDE
RIPARIAN
CORRIDOR

FUTURE RAIL SPUR
BY OTHERS

TO BALDWIN, IL

FUTURE RAIL SPUR
BY OTHERS

TRAIN

LEGEND

- NEW TRACK CONSTRUCTION
- FUTURE RAIL SPUR BY OTHERS
- EXISTING TRACKS
- RAILWAY ACCESS ROAD
- PROPERTY LINES (EXISTING)
- RECOMMENDED DEVELOPMENT SITES
- CENTERLINE OF DITCH
- CURRENT KRPD BOUNDARY

SITE F
13.5± AC.

SITE E
10.9± AC.

SITE D
11.3± AC.

SITE C
5.3± AC.

IL HIGHWAY 154

Grigg

EXHIBIT 10-6:

KASKASKIA REGIONAL PORT DISTRICT

Options for Extending Rail to North Sites

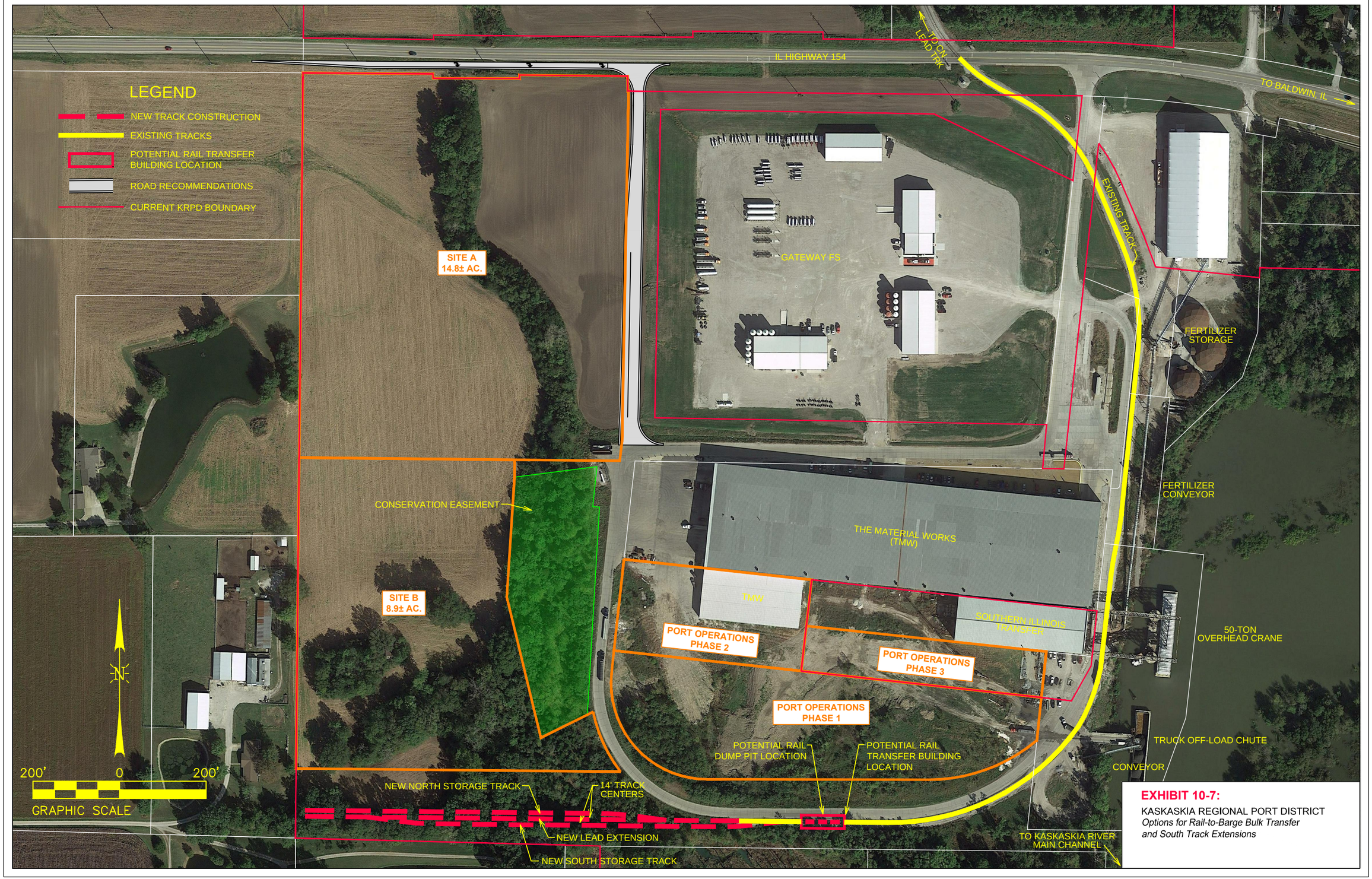


EXHIBIT 10-7:

KASKASKIA REGIONAL PORT DISTRICT

Options for Rail-to-Barge Bulk Transfer and South Track Extensions

FUTURE ROADWAY IMPROVEMENT OPTIONS

RIPARIAN CORRIDOR EASEMENT

LEFT TURN LANE

ILLINOIS ROUTE 154

DECELERATION LANE

TRUCK STAGING LANE

GRIGGS ROAD

CONSERVATION EASEMENT

LEGEND

- LIMITS OF OPTION A
- LIMITS OF OPTION B
- LIMITS OF OPTION C
- LIMITS OF OPTION D
- CONSERVATION EASEMENT

300' 0 300'

GRAPHIC SCALE

EXHIBIT 10-8:

KASKASKIA REGIONAL PORT DISTRICT

Alternatives for New Roadway Access

ALTERNATIVES FOR
SITE IMPROVEMENTS -
PORT OPERATIONS AREA

TMW
FACILITY

TMW

SOUTHERN ILLINOIS
TRANSFER

TMW PORT OPERATIONS
AREA - PHASE 2

SITCO PORT OPERATIONS
AREA - PHASE 3

KRPD PORT OPERATIONS
AREA - PHASE 1

EXISTING
DUMP PIT

SOUTHERN ILLINOIS
TRANSFER
LEASE AREA

FUTURE TRUCK SCALE

FUTURE ROADWAY

POTENTIAL TRUCK
SCALE BUILDING
LOCATION

POTENTIAL RAIL
TRANSFER BUILDING
LOCATION

390
380
370
400
390

100' 0 100'
GRAPHIC SCALE

EXHIBIT 10-9:
KASKASKIA REGIONAL PORT DISTRICT
Alternatives for Site Improvements

DEVELOPMENT AREAS

FUTURE ROW

GRIGGS ROAD

SITE G
POTENTIAL INDUSTRIAL
DEVELOPMENT ACREAGE
(IDNR 24.9± ACRES)

SITE H
POTENTIAL INDUSTRIAL
DEVELOPMENT ACREAGE
(IDNR 21.2± ACRES)

RIP. CORR.
0.98 ACRES

SITE F
POTENTIAL INDUSTRIAL
DEVELOPMENT ACREAGE
(GOETTING FARMS 13.5± ACRES)

SITE E
POTENTIAL INDUSTRIAL
DEVELOPMENT ACREAGE
(GOETTING FARMS 4.2± AC.)
(KRPD 6.7± AC.)
10.9± ACRES TOTAL

SITE D
POTENTIAL INDUSTRIAL
DEVELOPMENT ACREAGE
(KRPD 11.3± ACRES)

SITE C
POTENTIAL INDUSTRIAL
DEVELOPMENT ACREAGE
(KRPD 5.3± ACRES)

IL HIGHWAY 154

IL HIGHWAY 154

SITE A
FUTURE
DEVELOPMENT ACREAGE
(KRPD 14.8± ACRES)

SITE B
POTENTIAL INDUSTRIAL
DEVELOPMENT ACREAGE
(KRPD 8.9± ACRES)

CONS. ESMT.
2.4± ACRES

PHASE 2
(1.5± ACRES)

PHASE 3
(1.4± ACRES)

PORT OPERATIONS AREA
PHASE 1
(KRPD 5.3± ACRES)

LEGEND

- NEW YARD TRACK CONSTRUCTION
- EXISTING TRACKS
- FUTURE RAIL SPUR BY OTHERS
- EXISTING PROPERTY LINES (APPROX.)
- EXISTING KRPD BOUNDARY

425’ 0 425’

GRAPHIC SCALE

EXHIBIT 10-10:

KASKASKIA REGIONAL PORT DISTRICT

Potential Sites for Economic Development and New Port Users

11. Strategic Capital Development Plan Recommendations

Primary features of the recommended Strategic Capital Development Plan are presented below in the same order in which they were presented as alternatives in the previous chapter. A summary of recommendations and priorities is presented in the closing section.

11.1. Primary Features of the Plan and Implementation Strategies

The Strategic Capital Development Plan recommendations are responsive to criteria identified earlier in this report, and have been formulated after careful consideration of data gathered, analyses and discussions with KRPD and key stakeholders. Priorities are shown based on information available at this time, and may change depending on future events, opportunities, or availability of funding for specific types of projects. It is not necessary, for example, to complete all of the A-list projects before moving on to the B-list projects. The recommended prioritization provides a framework for progress and investment at KRPD#2, and periodic updates and revisions are typical and to be expected as the work proceeds and more information become available.

11.1.1. Navigation Access

In the U.S., USACE is responsible for maintaining inland waterway navigation access. Before USACE can take on new missions or projects, those projects must (a) be authorized by an act of the US Congress and (b) in a separate legislative action, receive funding appropriated by Congress for that mission or project.

Acknowledging this process, and for the purpose of improving navigation reliability during high water periods, it is recommended that KRPD work with its congressional representatives and USACE toward the goal of installing new lock arms and making related improvements.

Similarly, for reasons discussed in the prior chapter, it is recommended that KRPD work with its congressional representatives and USACE to authorize and fund a study regarding the feasibility of increasing the navigable depth of the Kaskaskia River from 9 feet to 12 feet.

11.1.2. New Barge Dock

The recommended location and general layout for a third dock is shown in ***Exhibit 11-1***. This location and arrangement are recommended because they are responsive to planning criteria and provide a versatile facility and long-term value for KRPD. An immediate recommendation is to recognize the limited options for providing truck access to this area south of the rail loop, and to preserve land required for future access roadways.

Additional information is needed to refine the barge dock concept, including:

(a) Hydrographic survey of the underwater elevations and topography in areas near the dock and mooring structures, as well as navigation approaches to the facility;
(b) Geotechnical information to assess alternative dock types; and
(c) Environmental evaluations to the extent required for obtaining relevant state and federal permits needed for construction.

The process of determining the final location, geometry and other details, as well as obtaining construction permitting, often requires 10-18 months. Recommended action items include proceeding with the hydrographic survey, refining details regarding the precise location and orientation, conducting appropriate geotechnical investigations, conducting appropriate environmental investigations, and applying for state and federal construction permits. USACE construction permits are normally good for 5 or 10 years. Once physical details are refined and a construction permit is in hand, KRPD will be in good position to proceed with final engineering design and construction in a timely manner, once appropriate business arrangements are in place and funding is acquired.

11.1.3. Rail Improvements

The overview of all recommended rail improvements is shown in ***Exhibit 11-2***. An immediate recommendation is to recognize the relative inflexibility of railroad geometry and to preserve the land required for implementation of the recommended rail improvements. This includes working to refine the conceptual layouts presented in this plan, defining the land required for not only the tracks, but also the related drainage, maintenance road access and grading, and then delineating these boundaries and preserving the land required for implementation.

Action items include: (a) field surveys, (b) identifying and resolving any environmental concerns, and (c) adding the required boundaries as set-aside areas on the overall KRPD#2 site mapping. Ongoing communications with CN representatives, as well as with rail users at KRPD#2 are also recommended.

Based on information available at this time, the first priority for construction is construction of two tracks in the proposed rail yard north of SR 154: the run-around track, and one additional track for operations, as well as the required connecting tail track. The run-around track should be the one closest to SR 154, and final design should consider the potential for rail spurs to lead from this track to up to four industrial sites between the rail yard and SR 154. It is important to lay out the rail yard and its ancillary features (drainage, maintenance road, grading, etc.) to establish the northern property lines for the proposed industrial sites north of SR 154. KRPD should retain ownership and control of land needed for full build-out of the rail yard.

11.1.4. Roadway Improvements

Provision of an alternative access road into KRPD#2 is a top priority. As shown on ***Exhibit 11-3***, and as discussed in Chapter 10, Option A (west boundary of Gateway FS) is recommended. Land required for Option A, with the possible exception of portions of the deceleration lane which are on state highway right-of-way, is currently owned by KRPD.

KRPD#2 tenants and users described provision of an alternative access road as a top priority for them. Recommendations for immediate action include: (a) appropriate site surveying; (b) further discussions with IDOT; (c) appropriate environmental investigations; (d) appropriate geotechnical investigations, (e) preparation of preliminary engineering design based on this information, along with an updated opinion of cost for the new access road.

11.1.5. Other Site Improvements

KRPD#2 currently lacks an efficient port operations laydown area. Most of the land at KRPD#2 which is above the 100-year flood elevation and reasonably close to the cargo crane is occupied. The only viable option is the land south of TMW and SITCO and north of the loop road. We recommend proceeding

immediately with and required surveying, geotechnical and environmental work, and then with engineering design and construction. As shown in ***Exhibit 11-4***.

Another top priority is to develop sites for future industries which require barge and/or rail transportation, and which will enhance the local economy by providing jobs and increasing the tax base. Sites recommended for development are shown in ***Exhibit 11-5***.

11.2. Opinions of Budget Requirements for Strategic Capital Investments

The following subsections contain preliminary opinions of cost for the various components, based on the limited information available at this time. Opinions of costs will likely change once actual survey, geotechnical and environmental information is available, along with possible adjustments to the conceptual plans.

It would be advantageous, and more cost-effective for KRPD, to conduct certain activities such as surveying and environmental studies on a site-wide basis. This site-wide approach will also aid in providing information for refinement of conceptual planning details. Anticipated costs for these items are included in the opinions of budget amounts shown with specific capital investment tasks in the following sections.

11.2.1. New Access Road

A new access road as shown in Exhibit 11-3 will improve operational efficiencies and decrease traffic conflicts during busy periods at KRPD#2. The conceptual plan includes construction of a two-lane concrete roadway connecting SR 154 to the existing on-site roadway near the northwest corner of the TMW building. It also includes construction of a deceleration lane along Illinois Route 154, and a truck staging lane along the new access road. A portion of the new roadway alignment is in the 100-year flood plain. Any filling in this area will require permitting by the Corps of Engineers and the Illinois Department of Natural Resources – Office of Water Resources. Changes to the flood plain limits will require FEMA approvals. The opinion of cost shown below includes environmental investigations but does not include FEMA flood plain or wetland mitigation costs.

Preliminary Work (surveys, environmental, geotechnical, permitting, etc.)	$30,000
Engineering Design and Construction	$680,000
Contingencies	$75,000
Preliminary Opinion of Cost for New Access Road	***$785,000***

11.2.2. New Port Operations Area

Development of a port operations area south of the TMW facilities provides a new capability at KRPD#2 for port operations including handling and storage of steel coils, wire rod, fabricated steel structures and sub-assemblies, and containers. The first task is to raise the elevation of this area to just above the 100-year flood elevation with compacted engineered fill. Then, within limits of the KRPD budget, build the hardstand in appropriate increments to support loads of heavy steel coils and heavy materials handling equipment. To provide the basis for an opinion of cost, a typical cross-section includes placement of a geotextile fabric, a 10-inch layer of 3-inch clean stone and then a layer of 6-inch thick CA-6 aggregate surface course. The actual cross-section for the hardstand depends on survey and geotechnical information not available at this time, so the opinion of cost needs to be revised once preliminary design information is available.

As shown in Exhibit 11-4, the first phase improvements include the land owned by KRPD. Land leased to TMW and land owned by SITCO can be added once appropriate agreements with TMW and SITCO are in place, possibly including cost-sharing by these entities.

The preliminary opinion of cost for the Port Operations Area is shown below.

Preliminary Work (surveys, environmental, geotechnical, permitting, etc.)	$20,000
Engineering Design and Construction	$785,000
Contingencies	$87,500
Preliminary Opinion of Cost for Port Operations Area	***$892,500***

It is recommended the preliminary work and design be done for the entire area (KRPD, TMW and SITCO areas). Then, construction can proceed in phases if necessary due to budget limitations. It is recommended that the engineered fill be placed over the entire area owned by KRPD. Rock for the hardstand can be added over the entire area or can be added in phases if required by budget limitations.

11.2.3. Sites for New Barge and Rail Users

Opportunities for growth of business at KRPD#2 are enhanced by attraction of new barge and rail using industries to the area, providing additional benefits to the region by increasing jobs and tax base. As shown on Exhibit 11-5, Sites A and B provide direct access to KRPD#2 services without crossing SR 154. Sites C, D, E and F provide sites immediately north of SR154, adjacent to KRPD#2. For the long-term public benefit, it is recommended that these sites be leased rather than sold to barge and rail using industries.

The anticipated costs for earthwork for sites A and B are much greater than for C, D, E and F. Therefore, it seems logical to develop the sites north of SR 154 first.

The preliminary opinion of cost for developing Sites C, D, E and F is shown below.

Preliminary Work (surveys, environmental, geotechnical, permitting, etc.)	$55,000
Engineering Design and Construction	$175,000
Contingencies	$17,500
Preliminary Opinion of Cost for Developing Sites C, D, E and F	***$247,500***

Note that part of site E and all of site F are owned by others, and the cost of land acquisition must be added to the opinion of cost shown above. The earthwork cost would bring all four sites to above the 100-year flood elevation. However, the natural lay of the land is such that the sites could be surveyed, property acquired, and cleared environmentally and then put on the market as-is. Work to survey and more precisely define the land needed for proposed rail improvements is needed to define the northern boundaries of sites D, E and F.

Sites A and B provide land contiguous with existing KRPD#2 facilities. From a development perspective and to help KRPD realize the full potential of this land, it would be ideal to relocate the drainage way which currently bisects site A to be adjacent to the proposed new access roadway. Preliminary calculations based on information available at this time show the amount of potential borrow material on Site B should be sufficient to provide fill for the Port Operations Area as well as Site A. This, of course, depends on the quality of the material and its suitability, which will be determined by geotechnical

explorations in the future. The contours of Site B and the proposed south rail corridor improvements will require acquisition of land to the south of Site B.

The preliminary opinion of cost for developing Sites A and B is shown below.

Preliminary Work (surveys, environmental, geotechnical, permitting, etc.)	$62,000
Engineering Design and Construction	$1,630,000
Contingencies	$180,000
Preliminary Opinion of Cost for Developing Sites A and B	***$1,872,000***

11.2.4. Rail Improvements

Rail capacity will be increased and operational efficiencies increased with construction of North Rail Yard Improvements. As highlighted in ***Exhibit 11-6***, the work included in this opinion of cost includes the clearing and earthwork for the full build out of the rail yard. The extension of the existing main line tack, track number 1, the run around track and an access roadway. It does not include the cost of trackage proposed in subsequent phases, nor does it include and wetland mitigation which may be required depending on the final design.

The preliminary opinion of cost for developing Phase 1 Rail North Rail Yard Improvements is below.

Preliminary Work (surveys, environmental, geotechnical, permitting, etc.)	$60,000
Engineering Design and Construction	$2,200,000
Contingencies	$235,000
Preliminary Opinion of Cost for Developing Phase 1 North Rail Yard Improvements	***$2,495,000***

Additional tracks can be added over time, as needed, in the North Rail Yard. The preliminary opinion of cost for developing the Future Phases of the North Rail Yard Improvements is shown below.

Engineering Design and Construction	$2,450,000
Contingencies	$260,000
Preliminary Opinion of Cost for Developing Future Phases North Rail Yard Improvements	***$2,710,000***

The South Rail Yard will provide additional operational capacity and flexibility to store empty cars and loaded rail cars, reducing the number of trips across SR 154. It also provides the potential for direct rail-to-barge transfer of bulk materials. The work included in this opinion of cost includes the full build out of the South Rail Yard. Costs for earthwork are included in the development cost for Site B. South rail yard improvements can, of course, be developed in phases, responsive to anticipated needs.

The preliminary opinion of cost for developing South Rail Yard Improvements is shown below.

Preliminary Work (surveys, environmental, geotechnical, permitting, etc.)	$55,000
Engineering Design and Construction	$1,420,000
Contingencies	$150,000
Preliminary Opinion of Cost for Developing South Rail Yard Improvements	***$1,625,000***

11.2.5. New Barge Dock

Development of a third dock will provide capability for offloading liquid cargo and increased capability for loading dry bulk. Timing is primarily dependent on attracting a user interested in receiving and distributing liquid fertilizer (UAN) or some other bulk liquid. The layout shown in Exhibit 11-1 provides land-side access for storage and distribution of bulk liquids as well for direct truck-to-barge dry bulk transfer. It is anticipated that KRPD would develop the dock, mooring structures and roadway system, and private sector interests would develop the liquid storage and distribution infrastructure and the truck-to-barge dry bulk facilities on land leased from KRPD. The opinion of cost provided below includes the roadways, dock and mooring structures, and either a dump pit and conveyor system or expanded dock with dry bulk dump chute. It does not include the liquid piping, storage and distribution facilities, which would be built by others.

The project could be implemented in phases, with the land-side infrastructure (grading, drainage, slope protection, roadways, utilities, etc.) included in one construction contract and the river-side infrastructure (dock, mooring structures, dredging, etc.) included in a separate construction contract. The preliminary opinion of cost for the new dock complex is shown below. This opinion and the conceptual plan must be reassessed and adjusted after detailed land-side and underwater surveys, land-side and river-side geotechnical investigations, and environmental surveys are completed. This

information could result in significant changes to the preliminary concept. Design and costs for the river structures are heavily dependent on underwater contours and geotechnical conditions, and no specific data is available at this time.

The preliminary opinion of cost for developing a new barge dock is shown below.

Preliminary Work (surveys, environmental, geotechnical, permitting, etc.)	$100,000
Engineering Design and Construction	$7,400,000
Contingencies	$800,000
Preliminary Opinion of Cost for Developing a New Barge Dock for receiving bulk liquids and loading dry bulk	***$8,300,000***

11.2.6. Development of Sites for New Barge and Rail Users North of the Rail Corridor

Acquisition of land north of the rail corridor would result in additional sites which could be rail-served. This land is currently owned by IDNR. If one tenant uses the entire site, access could be provided from Griggs Road, and that may possibly require acquisition of an access corridor from the current owners. If the site is ultimately used by two separate entities, access to Site H is shown on ***Exhibit 11-7***. This roadway would only be needed to provide access to Site H. The opinion of cost includes the road, consisting of a 24 foot wide concrete pavement with 6 foot wide shoulder on each side and ending in a cul-de-sac to allow tractor trailer turn round.

The preliminary opinion of cost for developing a new road for Site H is shown below.

Preliminary Work (surveys, environmental, geotechnical, permitting, etc.)	$52,000
Engineering Design and Construction	$568,000
Contingencies	$60,000
Preliminary Opinion of Cost for Developing a New Road to Site H	***$680,000***

11.3. Closing

A summary and prioritization of recommended action items is shown below. Strategic capital development plan recommendations are shown in a high-level summary view in ***Exhibit 11-8***. Actual

timing may vary and priorities may change over time due to market demands, opportunities, availability of funding for specific types of projects and other conditions unforeseen at this time.

Priority A – Navigation Improvements

It is recommended that KRPD begin right away working with USACE on navigation improvement projects. This requires staff time and Board time and expenses related thereto. The strategic goal is improvement to reliability of the navigation system. Two tactical goals are lock modifications to support navigation during high water periods and authorization for a twelve-foot navigation channel.

Priority A – New Access Road

Preliminary work for the new access road includes surveying, environmental investigations, geotechnical investigations, permitting and coordination with IDOT. Elements of the preliminary work should begin as soon as funding is available. Once new information is acquired, the conceptual layout for the roadway can be more precisely defined and a new opinion of cost for engineering design and construction should be obtained. Consideration should be given to authorizing some work, wetlands delineation for example, to cover other anticipated projects across the site to reduce overall costs. Close communication and coordination with IDOT are essential. Current KRPD#2 tenants and customers indicated strong support for this new access road. Final design and construction should begin as soon as funding is available.

Priority A – Port Operations Area

Developing a significant hardstand area for port operations near the existing cargo dock will add complimentary capabilities for handling and storing steel coils, wire rod, fabricated steel items, and containers. It is recommended that preliminary work such as surveying, environmental investigations, geotechnical investigations, etc., begin as soon as possible. Site B appears to have sufficient quantity of borrow material for on-site hauls, and geotechnical investigations are needed to determine the characteristics of the available material and its suitability for engineered fill. Earthwork for the entire area shown on Exhibit 11-4 should be placed in one phase of development, and hardstand should be constructed on as much of the area as is financially affordable for KRPD. It is recommended that the hardstand area be reserved for steel products and materials compatible with steel.

Priority A – Sites for Barge and Rail Users

Providing and marketing sites for barge and rail users is an important element for growth of KRPD#2. Preliminary work on Sites C, D, E and F, should begin right away including discussions with private land owner(s), surveys, environmental assessments, permitting, etc. Portions of these sites are below the 100-year flood elevation but much of the land is above the 100-year flood elevation. Once the land is surveyed and cleared environmentally, it could be marketed as-is or could be improved by construction of engineered fill to raise the lowest areas. Either way, these sites should be conserved for attracting barge and rail users which will create revenue for KRPD#2 and create jobs and tax base for the area.

Similarly, preliminary work to develop Sites A and B could be done in the near-term. It may be cost-effective to conduct wetlands delineations, land surveys, etc., for the new roadway, port operations area and Sites A and B at the same time. Refinement of the conceptual design for A and B, including whether the drainage way bisection Site A would be allowed, would provide valuable information to KRPD. If it would not be allowed, perhaps Sites A and B would be marketed as a single site.

Priority A – North Rail Yard Improvements

Preliminary work to develop the North Rail Yard could be done in the near-term. It may be cost-effective to conduct wetlands delineations, land surveys, etc., at the same time as the other Priority A preliminary work. Refinement of the conceptual design for the North Rail Yard improvements would also be helpful with the marketing and possible land acquisition of Sites C, D, E, and F.

Priority A – New Barge Dock

The relative priority for development of a new dock for handling and distributing liquid products can change depending on business plans for fertilizer distributors or other liquids users. While the current concept is for loading dry bulk, an operator could provide a barge mounted excavator and suitable conveyor system and the area could also be used for unloading dry bulk. Materials not compatible with steel should be stored and handled as far from the steel operations as possible. One possibility would be to develop a storage site just south of the cul-de-sac shown on Exhibit 11-1. Starting from the level of information available at this time, permitting for a new dock could take 12 to 18 months. Land-side and underwater surveys are needed to define the contour elevations both above and below water, and thence to adjust the location and orientation of the dock and mooring structures accordingly.

Geotechnical investigations both on land and in the water are needed to refine conceptual design and assess alternative dock types. Environmental studies are part of the information required for permitting.

Meanwhile, land-side access to the area could be developed at least across the rail grade crossing and a bit further south. The roadway could be developed and paved across the rail line, and extended further south without paving in the near-term.

Priority B – Rail Improvements

As demand for rail service grows, additional capacity and operational efficiency can be created by implementation of recommended rail improvements. KRPD will be in better position to react to opportunities if it completes phase 1 of the North Rail Yard Improvements. Preliminary work for the South Rail Improvements should also be undertaken at this time.

Priority B – Sites for Barge and Rail Users

As demand for developable sites grows, sites A and B will become more attractive options. These sites offer easy access to all of the port facilities and can be served by the infrastructure in place.

Providing and marketing sites for barge and rail users is an important element for growth of KRPD#2. Preliminary work on Sites G and H should begin at this time. It would be prudent to have discussions with the landowners of adjacent land about the ability to access this property.

Priority C – Rail Improvements

As demand for rail service grows, additional capacity and operational efficiency can be created by implementation of the additional phases of recommended rail improvements in the North Rail Yard as well as the Southern Rail Yard.

Priority C - Development of Sites for Barge and Rail Users North of the Rail Corridor

This land is currently owned by IDNR. In the near term, it would be beneficial for KRPD to begin discussions regarding transfer of ownership to KRPD. This land is mostly above the 100-year flood elevation and could provide a large, potentially rail-served site near KRPD#2. Decisions about the roadway construction should be held off until it is known if the tract is to be developed into one or two sites.

Site and Facility Requirements			
PW = Preliminary work	• ED&C+C = Engineering Design & Construction + Contingencies		
Recommendations	**Priority A 0-5 Years**	**Priority B 5-10 Years**	**Priority C 10-20 Years**
New Access Road	PW ED&C+C $785,000		
New Port Operations Area	PW ED&C+C $892,500		
Sites C,D,E & F	PW ED&C+C $247,500		
Sites A & B	PW $67,000	ED&C+C $1,805,000	
North Rail Yard Improvements	PW $60,000	Phase 1 ED&C+C $2,435,000	Future Phases ED&C+C $2,710,000
South Rail Yard Improvement		PW $55,000	ED&C+C $1,570,000
New Barge Dock	PW ED&C+C $8,300,000		
Sites G & H New Roadway, if needed		PW $52,000	ED&C+C $628,000
Total	$10,085,000	$4,347,000	$4,908,000.00
Priorities shown herein are based on current understanding of needs, markets and external factors. It is normal that adjustments in timing will be made during the coming years as conditions change and other opportunities arise. The plan provides definitive guidance, but also allows flexibility in the sequence of implementation in response to changes in markets and external conditions. This implementation schedule should be reviewed and revised periodically.			

RECOMMENDED LOCATION AND GENERAL LAYOUT FOR THIRD DOCK

FUTURE TRUCK SCALE

FUTURE ROADWAY

LIQUID STORAGE 84'Ø

LIQUID STORAGE 84'Ø

LIQUID STORAGE 84'Ø

LIQUID PIPING

LIQUID TRANSFER BLDG 30' X 120'

DUMP PIT

CONVEYOR

MAINTENANCE ROAD

DOCK

DAVIT CRANE

400

400

390

380

380

390

380

390

370

370

370

370

370

100' 0 100'

GRAPHIC SCALE

BARGE DOCK LOCATION TO BE DETERMINED BY RIVER BANK CONTOURS, UNDERWATER RIVER CONTOURS, AND SPACE REQUIRED FOR BARGE OPERATIONS. A HYDROGRAPHIC SURVEY IS NEEDED TO RATIONALIZE THE APPROXIMATE LOCATION.

EXHIBIT 11-1:

KASKASKIA REGIONAL PORT DISTRICT

Recommended Location and General Layout for Third Dock

OVERVIEW OF ALL
RAIL IMPROVEMENTS

PROPOSED NORTH RAIL YARD

RIPARIAN CORRIDOR

SITE F
13.5± AC.

SITE E
10.9± AC.

SITE D
11.3± AC.

SITE C
5.3± AC.

SITE A
14.8± AC.

SITE B
8.9± AC.

CONSERVATION EASEMENT

PROPOSED SOUTH RAIL YARD

LEGEND

- NEW YARD TRACK CONSTRUCTION
- EXISTING TRACKS
- FUTURE RAIL SPUR BY OTHERS
- EXISTING PROPERTY LINES (APPROX.)
- RECOMMENDED DEVELOPMENT SITES
- EXISTING KRPD BOUNDARY

300’ 0 300’
GRAPHIC SCALE

EXHIBIT 11-2:
KASKASKIA REGIONAL PORT DISTRICT
Overview of All Rail Improvements

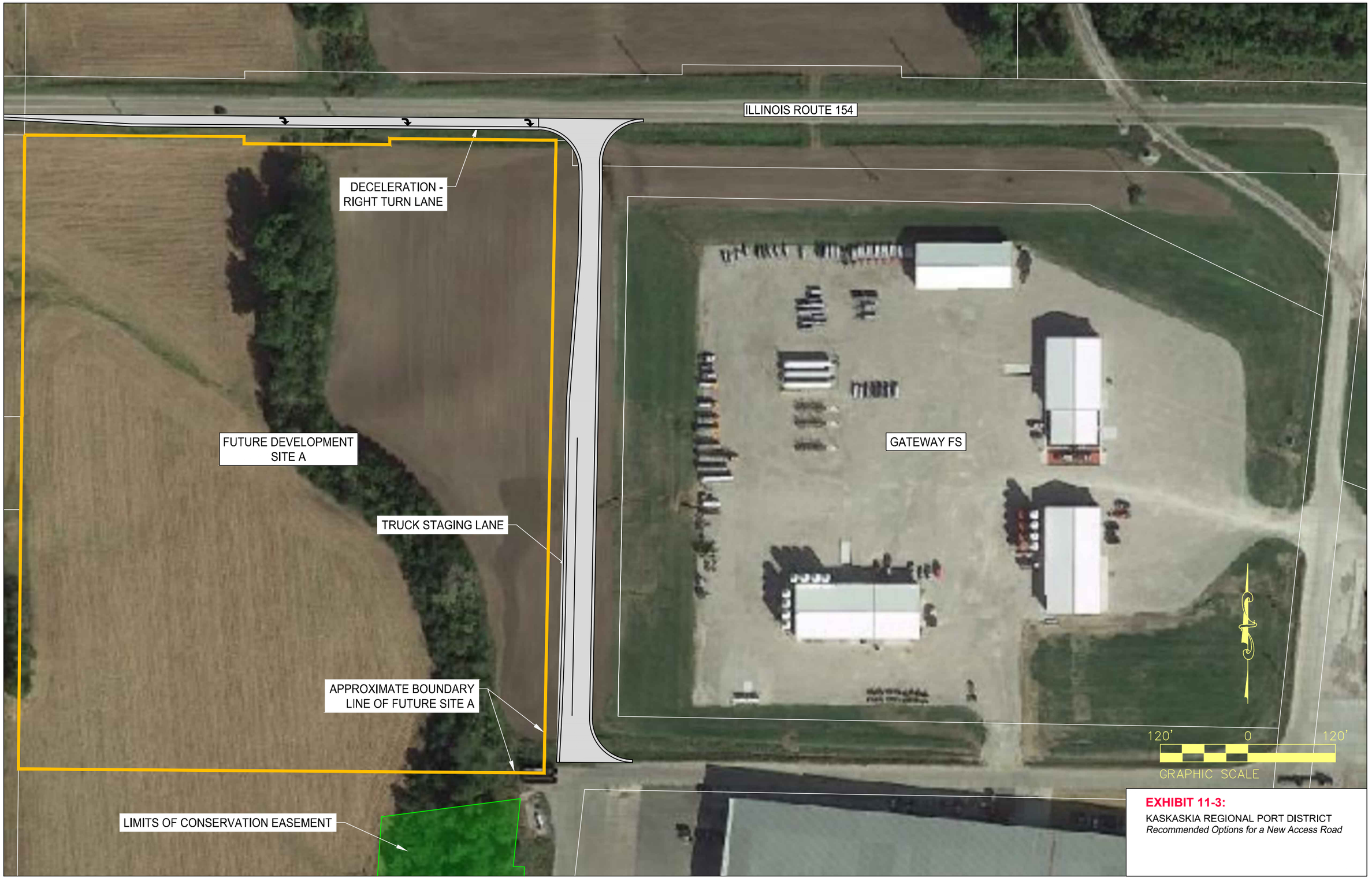


EXHIBIT 11-3:

KASKASKIA REGIONAL PORT DISTRICT

Recommended Options for a New Access Road

NEW PORT OPERATIONS AREA

TMW FACILITY

TMW

TMW PORT OPERATIONS AREA - PHASE 2

SOUTHERN ILLINOIS TRANSFER

SITCO PORT OPERATIONS AREA - PHASE 3

KRPD PORT OPERATIONS AREA - PHASE 1

EXISTING DUMP PIT

SOUTHERN ILLINOIS TRANSFER LEASE AREA

FUTURE TRUCK SCALE

FUTURE ROADWAY

POTENTIAL TRUCK SCALE BUILDING LOCATION

POTENTIAL RAIL TRANSFER BUILDING LOCATION

390

380

370

400

100' 0 100'

GRAPHIC SCALE

EXHIBIT 11-4:

KASKASKIA REGIONAL PORT DISTRICT

New Port Operations Area

POTENTIAL SITES
A, B, C, D, E AND F

SITE F
13.5± ACRES

SITE E
10.9± ACRES

RIPARIAN CORRIDOR

SITE D
11.3± ACRES

SITE C
5.3± ACRES

SITE A
14.8± ACRES

SITE B
8.9± ACRES

CONSERVATION EASEMENT

LEGEND

- NEW YARD TRACK CONSTRUCTION
- EXISTING TRACKS
- FUTURE RAIL SPUR BY OTHERS
- EXISTING PROPERTY LINES (APPROX.)
- RECOMMENDED DEVELOPMENT SITES
- EXISTING KRPD BOUNDARY

300’ 0 300’
GRAPHIC SCALE

EXHIBIT 11-5:
KASKASKIA REGIONAL PORT DISTRICT
Potential Sites A, B, C, D, E and F

SITE G
24.9± AC.

SITE H
21.2± AC.

GOETTING
FARMS

IDNR
NORTHWEST
PROPERTY

IDNR
NORTHEAST
PROPERTY

SPUR TO FUTURE TENANT TRACK

NEW BARRY
ROAD CROSSING

STORAGE TRACK NO. 1

BARRY ROAD

N

200’ 0 200’

GRAPHIC SCALE

SPUR TO FUTURE TENANT TRACK

SPUR TO FUTURE TENANT TRACK

FUTURE TRACK CONSTRUCTION

LADDER/RUNAROUND TRACK

0.98 ACRES+/-
100’ WIDE
RIPARIAN CORRIDOR

SPUR TO FUTURE TENANT TRACK

TO BALDWIN, IL

EXISTING
TRACK

19 ACRES+/-
GOETTING FARMS PROPERTY

18 ACRES+/-
KASKASKIA PORT DISTRICT PROPERTY

CRIGGS ROAD

SITE F
13.5± AC.

SITE E
10.9± AC.

SITE D
11.3± AC.

SITE C
5.3± AC.

IL HIGHWAY 154

TO LOADING
& UNLOADING
FACILITIES

LEGEND

- RECOMMENDED YARD TRACK CONSTRUCTION
- FUTURE YARD TRACK CONSTRUCTION
- EXISTING TRACKS
- RAILWAY ACCESS ROAD
- PROPERTY LINES (EXISTING)
- RECOMMENDED DEVELOPMENT SITES
- CENTERLINE OF DITCH
- EXISTING KRPD BOUNDARY

EXHIBIT 11-6:

KASKASKIA REGIONAL PORT DISTRICT

North Rail Yard Improvements

ACCESS CORRIDOR NEEDED

FUTURE ROW

GRIGGS ROAD

IDNR

SITE G
24.9± AC.

FUTURE RAIL SPUR BY OTHERS

FUTURE RAIL SPUR BY OTHERS

IDNR

SITE H
21.2± AC.

N

200’ 0 200’

GRAPHIC SCALE

GOETTING
FARMS

NEW RAIL CORRIDOR

RIPARIAN CORRIDOR
EASEMENT

LEGEND

- NEW TRACK CONSTRUCTION
- FUTURE RAIL SPUR BY OTHERS
- EXISTING TRACKS
- RAILWAY ACCESS ROAD
- PROPERTY LINES (EXISTING)
- RECOMMENDED DEVELOPMENT SITES
- CENTERLINE OF DITCH
- EXISTING KRPD BOUNDARY

EXHIBIT 11-7:

KASKASKIA REGIONAL PORT DISTRICT

Development Sites North of Rail Corridor

OVERVIEW OF MASTER PLAN RECOMMENDATIONS

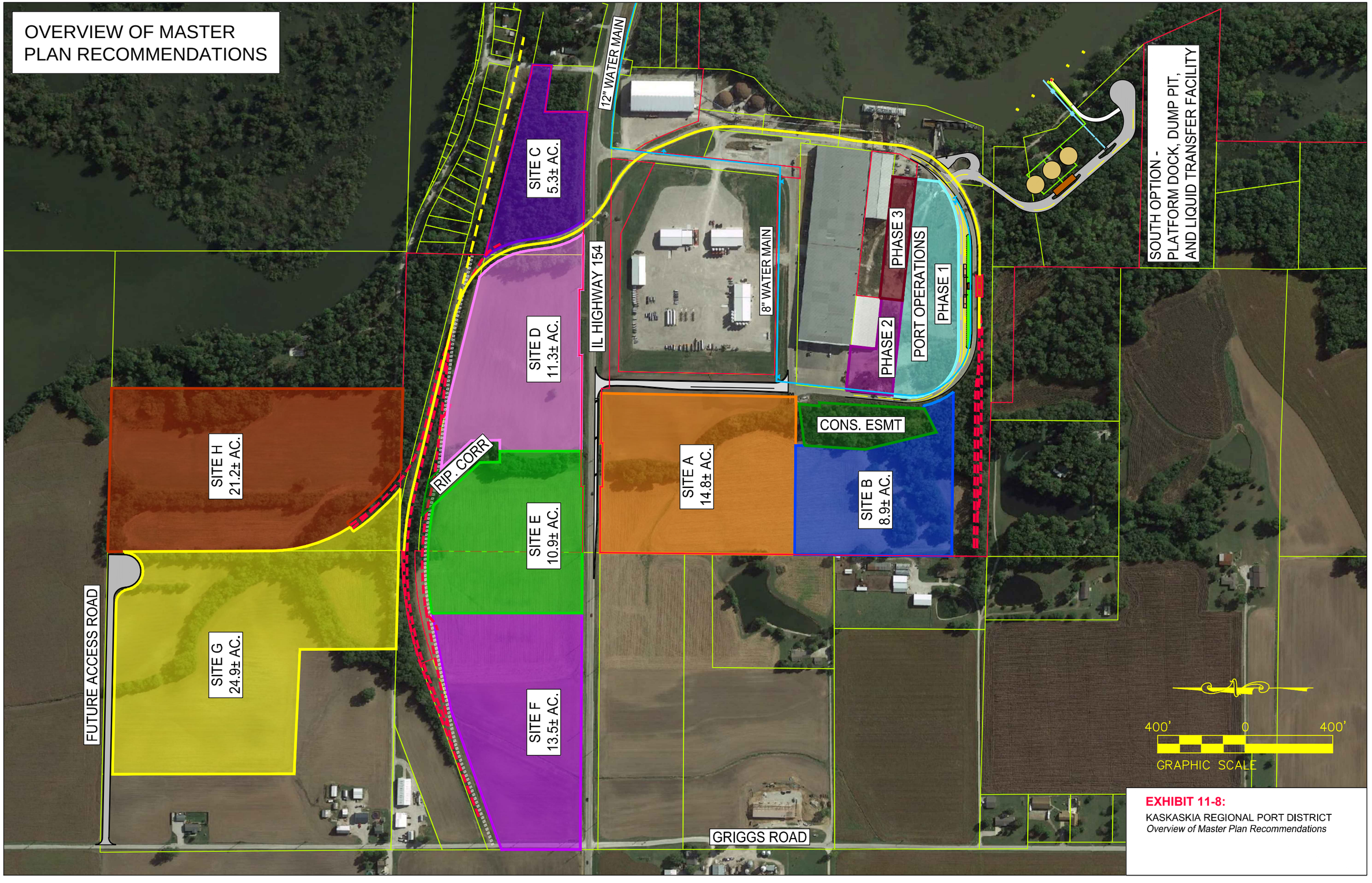


EXHIBIT 11-8:

KASKASKIA REGIONAL PORT DISTRICT

Overview of Master Plan Recommendations