



Illinois Marine Transportation System Plan

Status Briefing for IL State Freight Advisory Committee

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August 8th 2019



ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN



Illinois Department of Transportation



Agenda

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

- **Introductions**
- **Study Overview in Brief**
- **Work Elements to Date**
 - » Stakeholder Outreach
 - » Facilities Inventory
 - » Commodity Flows
 - » Funding Options
- **Next Steps**



Illinois Marine Transportation System Plan and Economic Impact Analysis Study



ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN



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Study Overview

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- **Stakeholder Engagement**
- **System and Volume Information**
- **User and Operator Information**
- **Needs Assessment and Strategy Development**
- **Benefits of Action**





Stakeholder Engagement

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- **Federal and State Agencies**
- **Maritime Stakeholder Outreach**
 - » Verify and learn about stakeholder needs
 - » Port Districts, Shippers, Carriers, Federal & State Agencies, Agriculture,
 - » ETC.
- **Regional Forums**
 - » Educate public
 - » Learn about local priorities





System and Volume Information

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- **Overview of History of Illinois Waterway**
 - » Provide a history of IMTS from the pre-Columbian era to modern times
- **Inventory of Facilities, Conditions, and Connections**
 - » Inventory port facilities
- **Commodity Flows and Volumes**
 - » Provide information on flows using IMTS and other modes that support the IMTS





User and Operator Information

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- **Industry Profiles of Primary MTS Shippers and Receivers**
 - » Provide analysis of facilities and commodity flows within major commodities and industry groups
- **Inventory of Carriers and Operators**
 - » Identify carriers and operators, and learn about their daily experiences on the IMTS



Marine Transportation Creates Economic Value

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One 15 Barge Tow is
Equivalent To

- **216 Rail Cars and 6 Locomotives**
- **1,050 Large Semi Tractor-Trailers**

One Gallon of Fuel
Moves 1 Ton of Cargo

- **647 Miles by Water**
- **477 Miles by Rail**
- **144 Miles by Truck**





Measuring Economic Value

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IMTS-reliant
industry effects on
State's economy

Port contribution
to state economy



Port contribution
to regional
economy





Maritime Employment

This map illustrates the distribution of maritime employment across the state of Illinois, categorized by port districts. The employment density is represented by a color gradient from light blue (Low) to dark blue (High). The map shows a high concentration of maritime employment in the Chicago area and along the Illinois River. A legend in the bottom left corner identifies the symbols for ports (red dots) and port districts (orange outline). A scale bar and north arrow are located in the bottom right corner.

Maritime Employment

Low High

• Ports

Port Districts

100 Miles





Needs Assessment and Strategy Development

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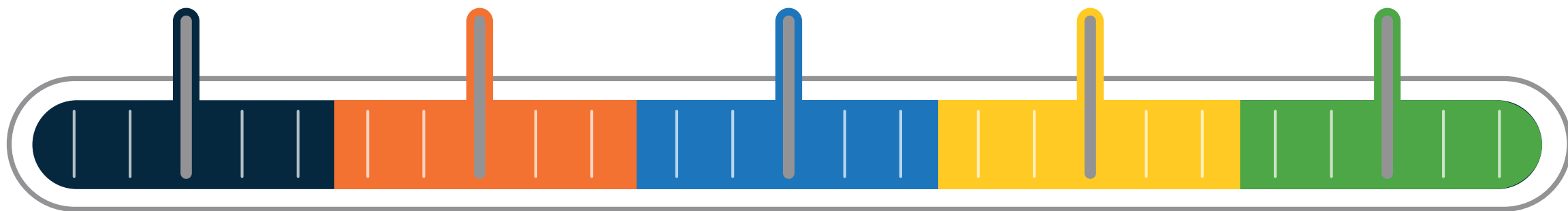
**SWOT
Analysis**
(Port, Waterway,
and System-
Levels)

**Critical
Needs and
Potential
Responses**

**Peer State
Programs
and Best
Practices**

**Programmatic
Action Plan
Recommendations
and Responsibilities**

**Funding
and
Financing**





Benefits of Recommended Action Plans

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Benefit-Cost Analysis

- » Safety
- » State of Good Repair
- » Economic Competitiveness
- » Environmental Protection
- » Livability

Recommended Programmatic Action Plans

- » Develop near-term and long-range programmatic action plan



Stakeholder Outreach to Date



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Stakeholder Outreach to Date

- **21 Stakeholder Engagements**
 - 17 in person
 - 4 via phone
- **Stakeholders**
 - Port Districts
 - Agriculture Industry
 - Chemical Industry
 - Manufactures
 - Aggregate Industry
 - Tow Operators



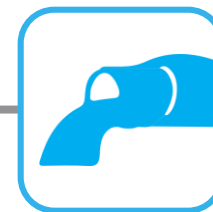


Themes to Date

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Lack of designated state funding

» Comparative example: Missouri program



Role in economic development

Consolidation

Flooding

Assistance with grants

State leadership

Environmental permitting for port dredge material





Themes to Date

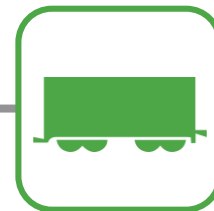
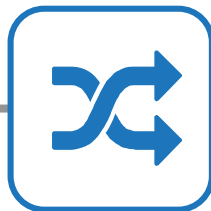
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Significance of freight cost & performance to economic health, competitiveness and diversity



Competitive advantages of Illinois River System

Access routes: farm & plant to terminal



Truck weights and configuration

Locks and dams

- » Modernization
- » Closures



Inventory of Facilities, Conditions, and Connections



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Illinois Marine Transportation System Overview

- 1,118 miles of navigable inland waterways
- 19 Public Port Districts
- Over 350 private terminals
- Ferries, Water Taxis, Cruises
- 9% of the state's freight tonnage is moved via the IMTS
- 2017 Waterborne Freight totaled:
 - 90.6 million tons

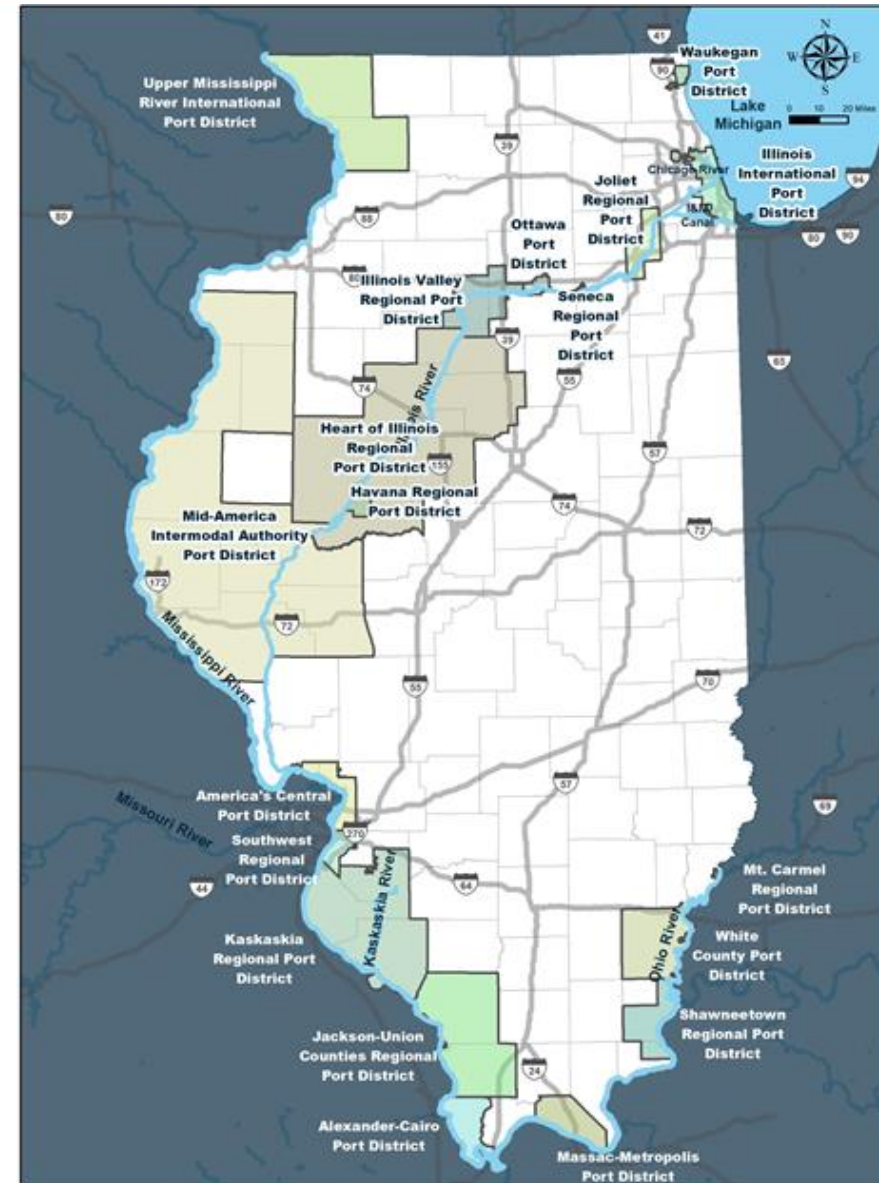




Illinois Port District Map

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- **19 Public Port Districts**
- **4 Navigable Rivers**
 - » Mississippi
 - » Ohio
 - » Illinois
 - » Kaskaskia
- **Chicago Area Waterway System (CAWS)**



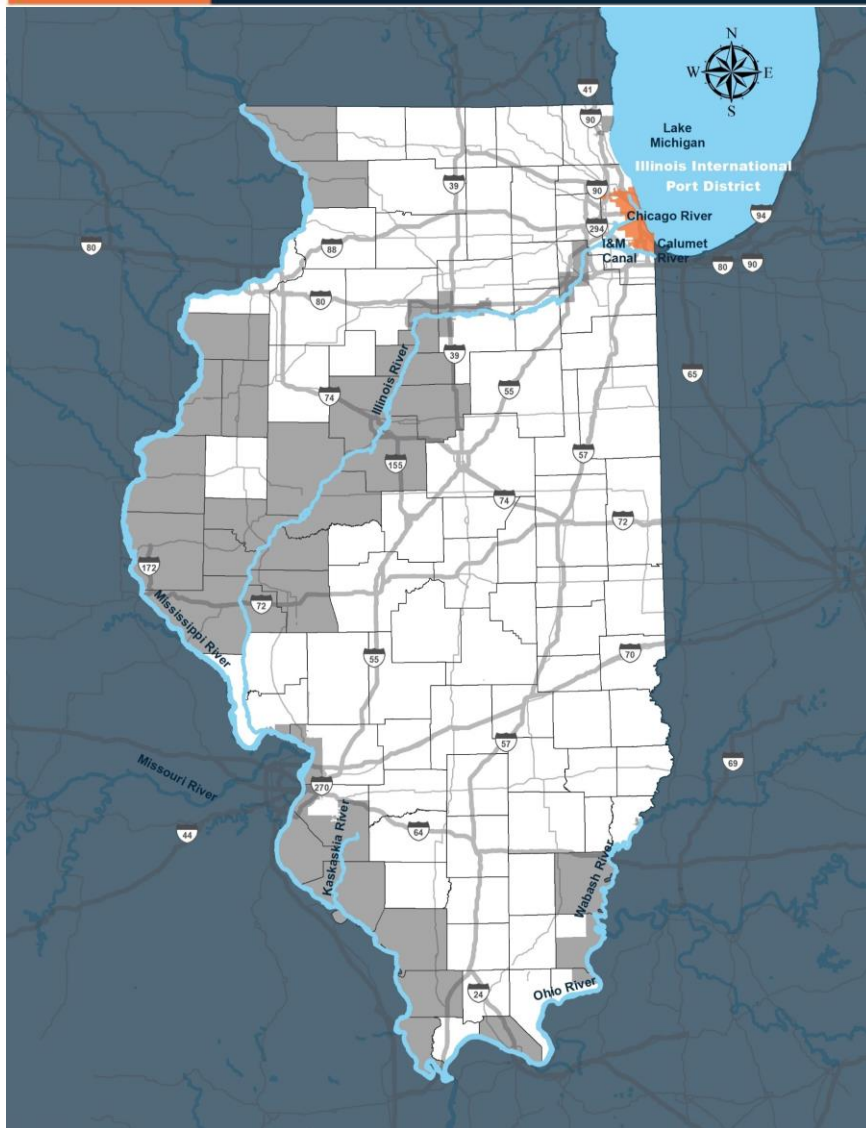


- **Over 350 Terminals**
- **Majority Private**
- **Types of Commodities**
 - » Grain
 - » Sand
 - » Gravel
 - » Chemicals
 - » Fertilizer
 - » Fuel





Illinois International Port Authority





Facility Inventory Example: Illinois International Port District

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- **River Length**

- » Chicago Sanitary & Ship Canal, and Chicago River 10 Miles
- » Chicago River North Branch 6.5 Miles
- » Calumet River and Channel 13.5 Miles

- **Terminals**

- » 77 located within the Port District

- **Road Connection**

- » I-294, I-290, I-90, I-94, I-80, I-57, I-55

- **Rail Connection**

- » Served by six out of seven Class I Railroads

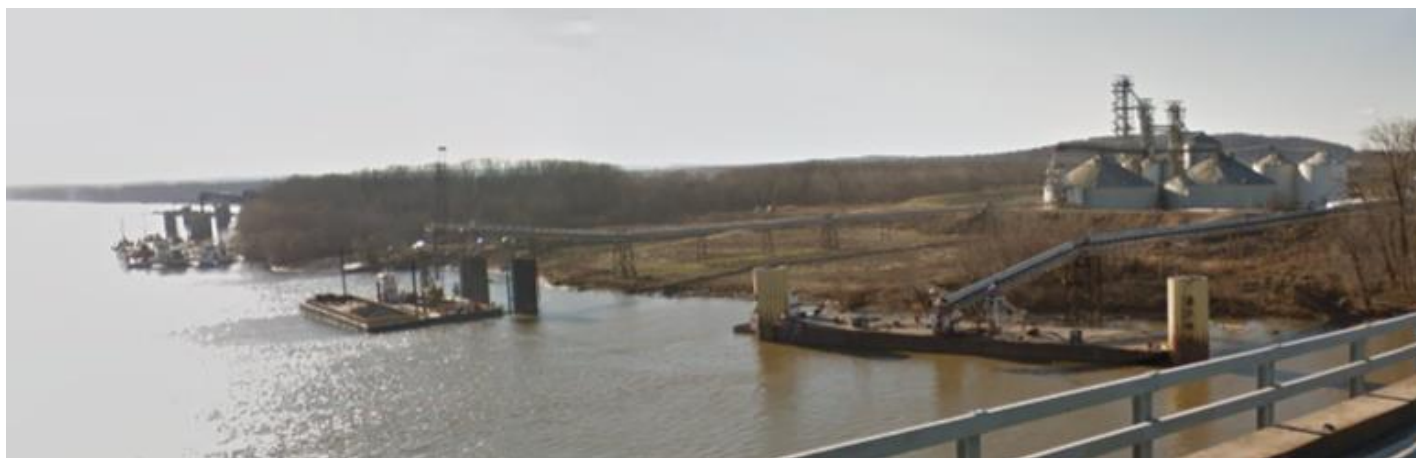
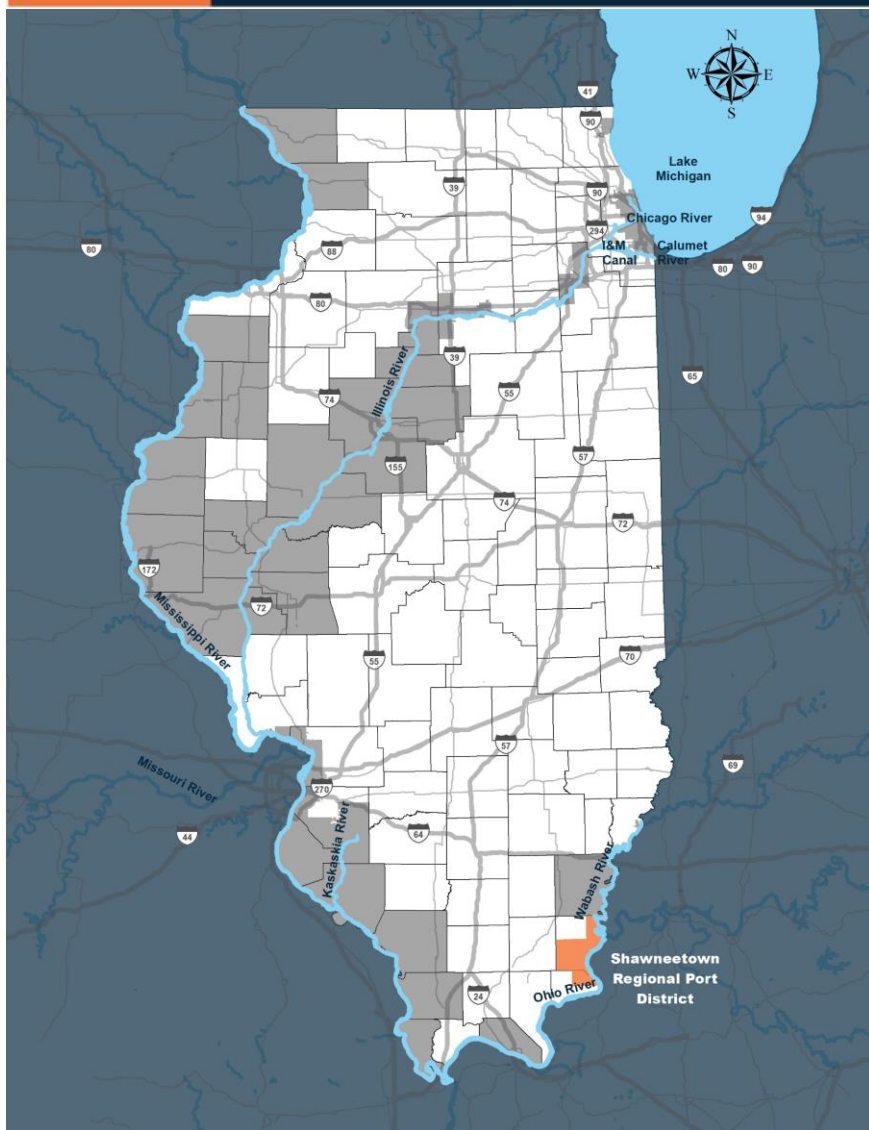
- **Major commodities**

- » Sand and Gravel
- » Base Metals
- » Fuel Oils





Shawneetown Regional Port District





Facility Inventory Example: Shawneetown Regional Port District

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- **River Length**
 - » Ohio River 11 Miles
- **Terminals**
 - » 6 located within the Port District
- **Road Connection**
 - » IL-1, IL-13
- **Rail Connection**
 - » There is no rail access
- **Major commodities**
 - » Food

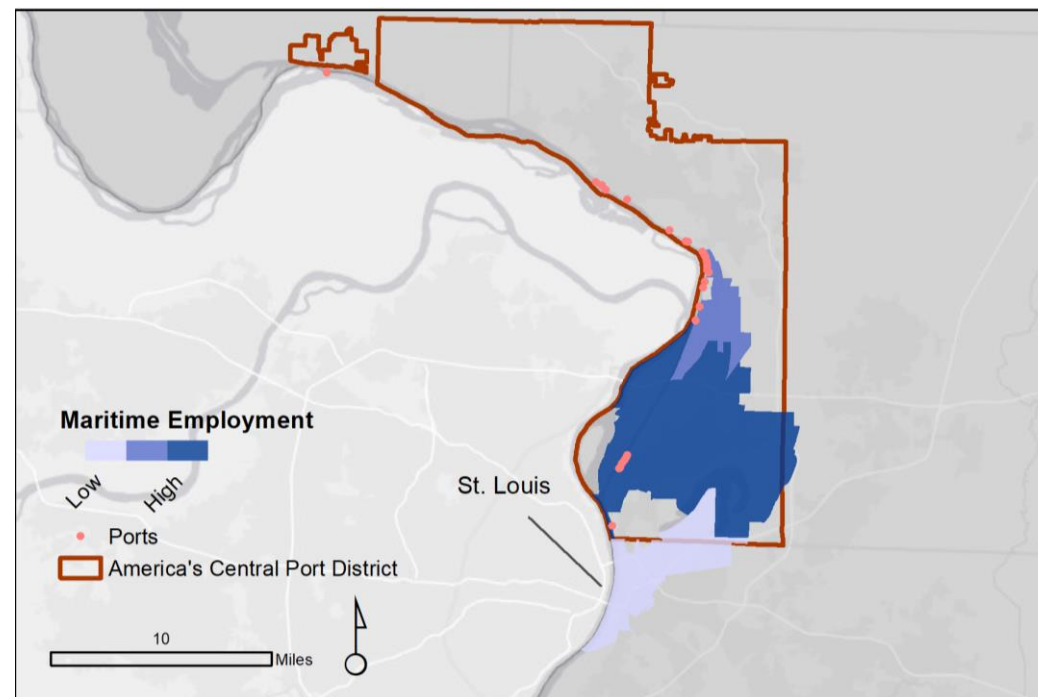




Maritime Activity – America's Central Port District

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Maritime Activity	
Establishments	12
Jobs	549
Income	\$60.0 million
Value Added	\$111.7 million
Output	\$298.0 million

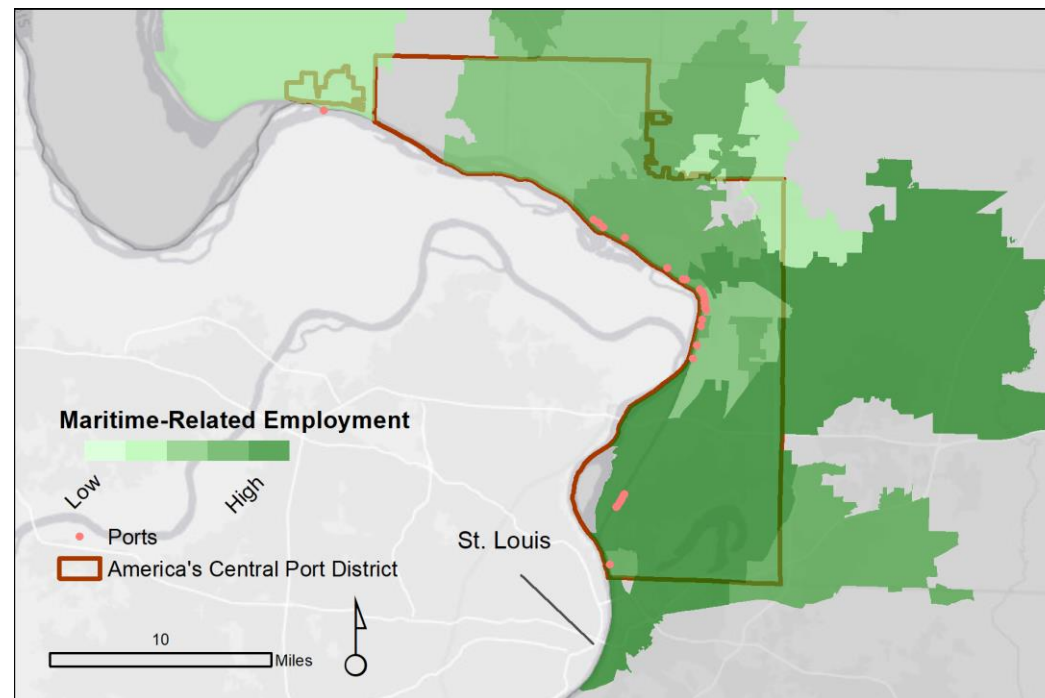




Maritime Activity – America's Central Port District

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Maritime-Related Activity	
Establishments	162
Jobs	5,365
Income	\$359.0 million
Value Added	\$449.0 million
Output	\$791.0 million



Commodity Flows Analysis



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Commodity Flows Information Sources and Analysis

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- **Army Corps of Engineers Waterborne Commerce of the U.S.**

- » State-to-state commodity flows (no waterway segment detail)
- » Waterway segments:
 - ✓ Illinois River; Chicago area; segments of the Mississippi, Ohio and Tennessee Rivers.
 - ✓ Direction of movement, and shipments versus receipts.
- » Reconcile State and Waterway data (for state non-disclosed data)

TOTAL IL 2017 TONNAGE (000)	Outbound	Inbound	Intrastate	TOTAL
	62,115	20,073	8,374	90,562

- **County origins and destinations derived from Transearch**
- **U.S. DOT Freight Analysis Framework (FAF) forecasted freight flows:**
 - » Growth rates applied to 2017 Army Corps data

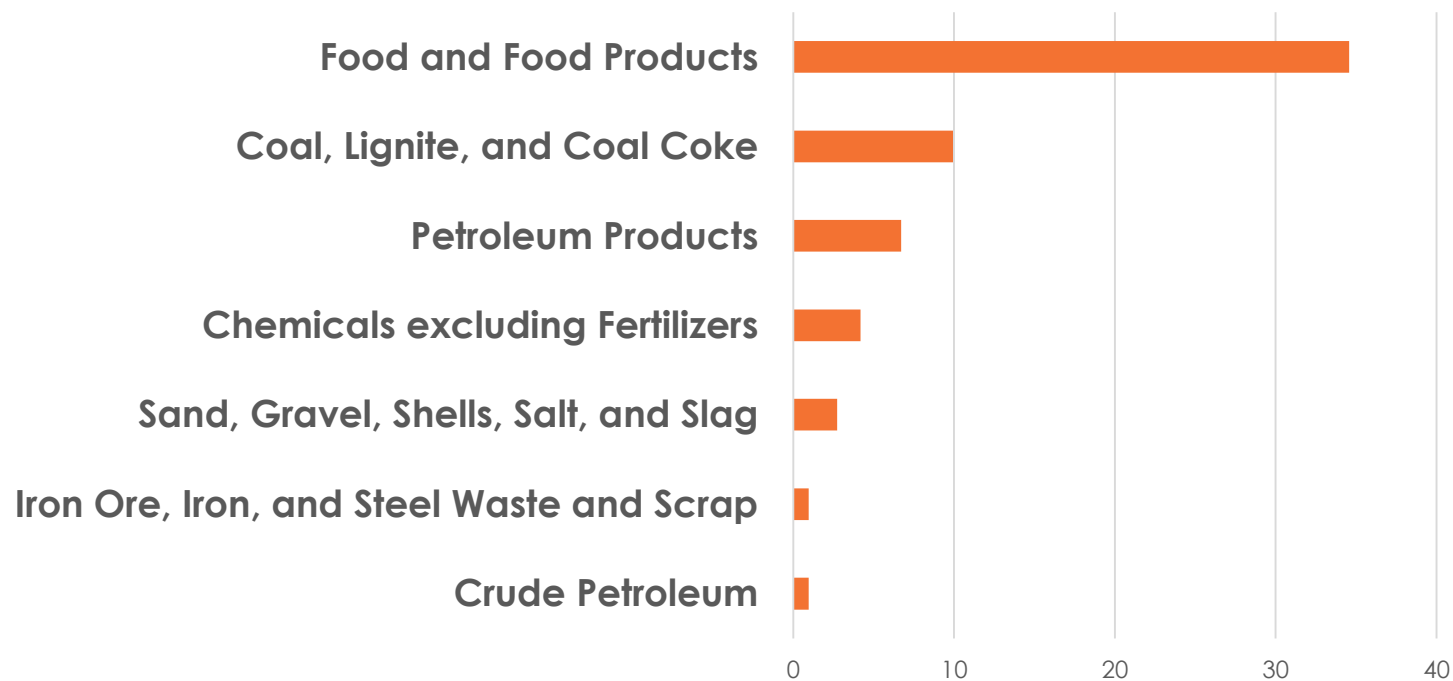




Top Illinois Commodity Flows on Waterways

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Illinois Out-of-State Top Shipments in 2017 in Millions of Tons

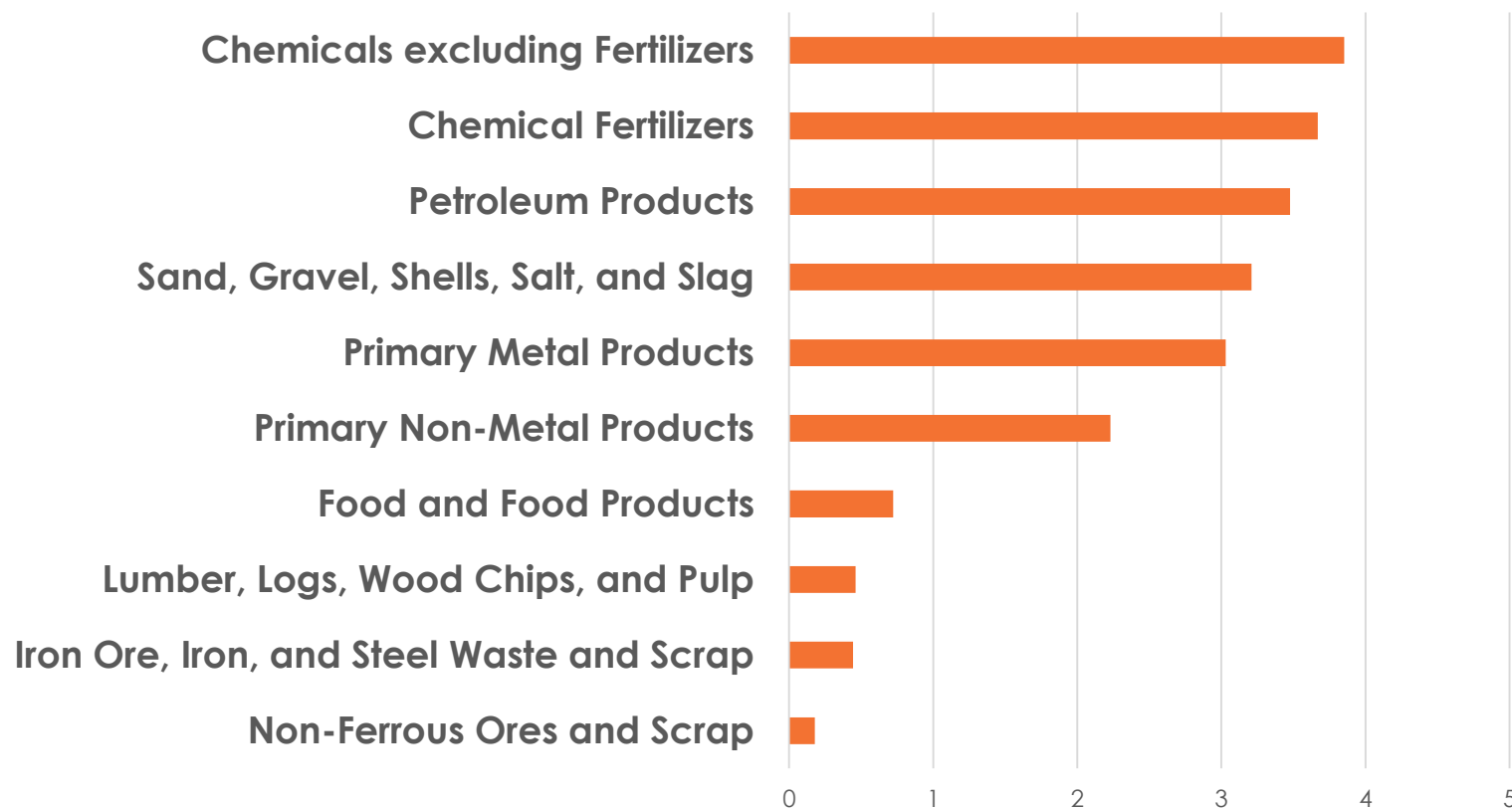




Top Illinois Commodity Flows on Waterways

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Top Illinois Inbound Volumes in 2017 in Millions of Tons

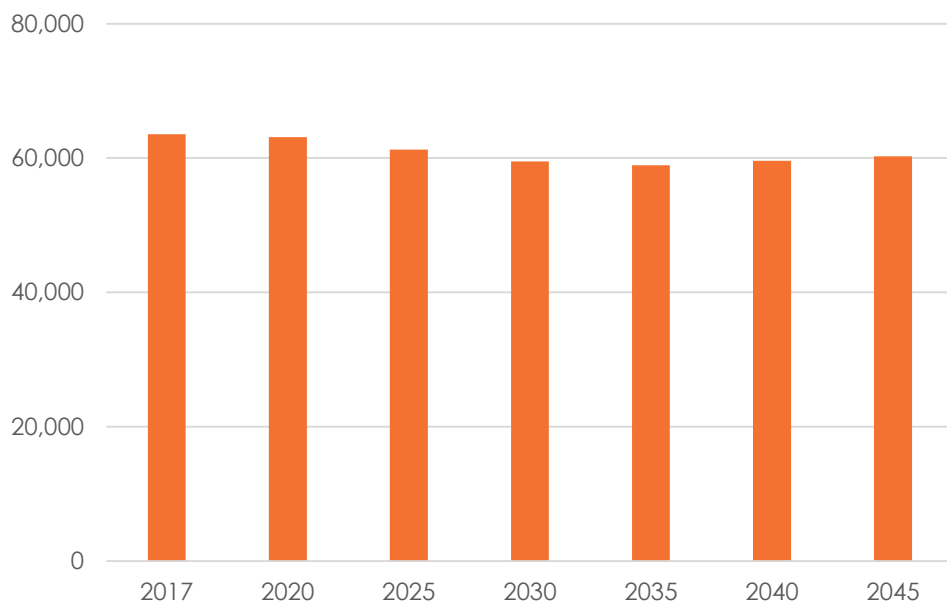




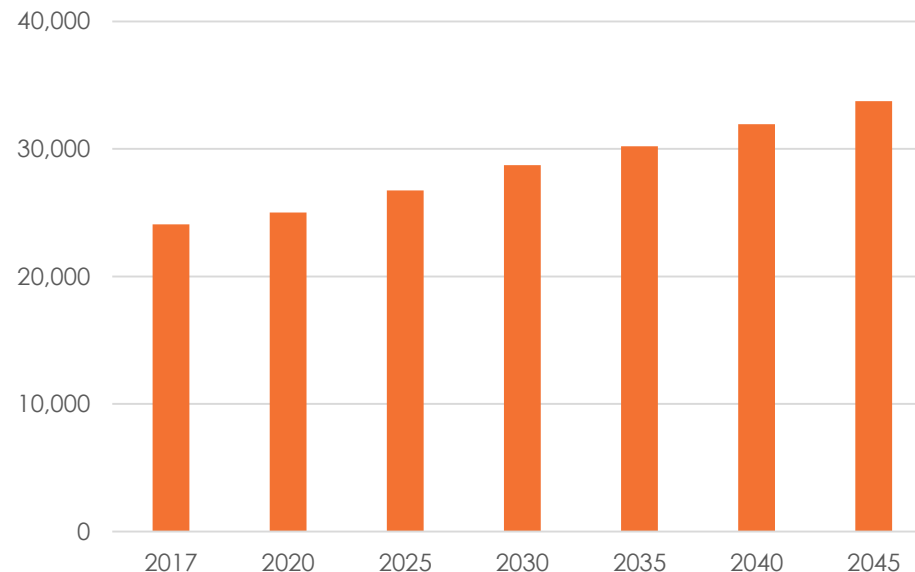
Total Forecasted Volumes

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Outbound Tons 000



Inbound Tons 000



- Outbound volumes are double those of inbound but slightly declining, while inbound volumes are projected to grow
- Changes are largely related to declines in energy products

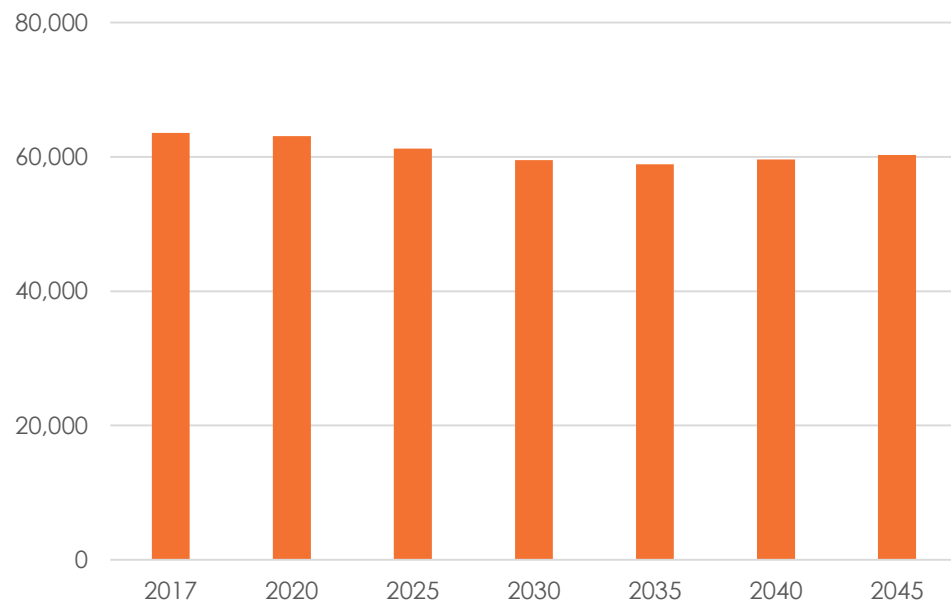




Small Net Declines in Outbound Volumes

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Total Tons 000



Growth is led by Food, Sand and Gravel and Non Metallic Mineral Products

Large declines are in Energy Products

Commodity Detail

	2017	2045	Growth
Total	63,565,923	60,270,554	-3,295,369
Food	35,522,074	40,429,056	4,906,982
Sand and Gravel	4,618,904	5,829,350	1,210,446
Non Metal Mineral Products	302,130	628,764	326,634
Fertilizers	326,470	552,264	225,794
Articles Base Metal	139,628	309,996	170,368
Base Metals	548,750	711,129	162,379
Non Metallic Minerals	385,627	537,878	152,251
Metallic Ores	51,190	69,128	17,938
Chemical Products	0	0	0
Wood Products	0	0	0
Gasoline	83,180	65,904	-17,276
Crude Petroleum	907,670	873,699	-33,971
Basic Chemicals	3,716,670	3,032,741	-683,929
Coal NEC	3,889,011	3,069,495	-819,516
Fuel Oils	2,357,277	1,347,388	-1,009,889
Coal	10,717,342	2,813,762	-7,903,580

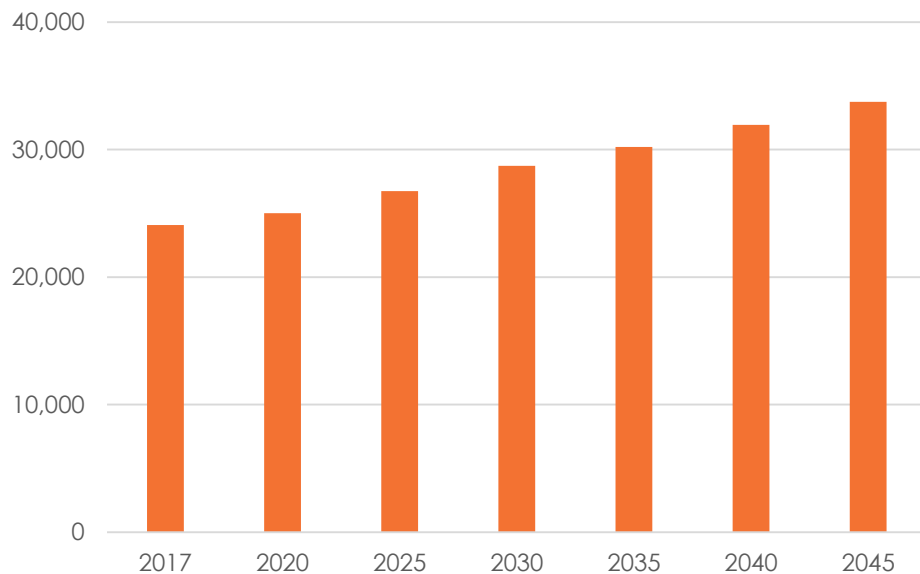




Growth in Inbound Volumes

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Total Tons 000



Growth is led by Fertilizers, Base Metals, Non Metallic Mineral Products and Sand and Gravel

Declines are in Energy Products

Commodity Detail

	2017	2045	Growth
Total	24,076	33,744	9,667
Fertilizers	3,780	6,252	2,472
Base Metals	3,396	5,718	2,323
Non Metal Mineral Products	2,146	4,098	1,952
Sand and Gravel	4,294	5,636	1,341
Basic Chemicals	2,520	3,338	818
Food	761	1,551	789
Wood Products	341	899	557
Articles Base Metal	299	667	367
Chemical Products	97	439	342
Non Metallic Minerals	1,432	1,701	268
Metallic Ores	307	414	108
Crude Petroleum	0	0	0
Coal	87	22	-65
Gasoline	374	11	-363
Coal NEC	2,199	1,756	-443
Fuel Oils	2,043	1,244	-799



Funding Options



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Illinois Port Facilities Funding Support Programs

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Federal

- Army Corps of Engineers Work Program (navigable waterways)
- USDOT federal gas tax funds (highway access)
- Transportation Grants (BUILD, INFRA, Marine Highway, Port Infrastructure Development)
- Economic Grants / Revenue Enhancement (USDA Opportunity Zone, FTZ designation)
- Innovative finance / loan programs (TIFIA, RRIF, PPP, etc.)

State

- IL Capital Bill / provisions and expectations
- DCEO funding (port revolving loan & others)
- Highway and rail program expenditures

Public port self-funding through revenues

Private investment (marine terminals, railroads, processing and industrial facilities, etc.)

Next Steps





Next Steps

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Complete
Facilities
Inventory



Complete
Economic
Impact
Analysis



Continue
Stakeholder
Outreach



Develop
Industry Profiles



Prepare
Inventory of
Carriers and
Operators



2nd Steering
Committee
Meeting -
September

