Illinois Marine Transportation System Plan

Status Briefing for IL State Freight Advisory Committee

Melvin Price Locks and Dam
August 8th 2019
Agenda

- 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
Study Overview

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

- 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

- **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

- **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

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

Port contribution to state economy

IMTS-reliant industry effects on State’s economy

Port contribution to regional economy
Needs Assessment and Strategy Development

- SWOT Analysis (Port, Waterway, and System-Less 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

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
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
Lack of designated state funding
- Comparative example: Missouri program

Role in economic development

Consolidation

Environmental permitting for port dredge material

Assistance with grants

State leadership

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

Access routes:
- farm & plant to terminal

Competitive advantages of Illinois River System

Truck weights and configuration

Locks and dams
- Modernization
- Closures
Inventory of Facilities, Conditions, and Connections
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
- 19 Public Port Districts
- 4 Navigable Rivers
  » Mississippi
  » Ohio
  » Illinois
  » Kaskaskia
- Chicago Area Waterway System (CAWS)
Terminal Locations

- Over 350 Terminals
- Majority Private
- Types of Commodities
  - Grain
  - Sand
  - Gravel
  - Chemicals
  - Fertilizer
  - Fuel
Facility Inventory Example: Illinois International Port District

**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**

**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

- **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

<table>
<thead>
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<th>Maritime Activity</th>
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<tr>
<td>Establishments</td>
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<td>Jobs</td>
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<tr>
<td>Income</td>
<td>$60.0 million</td>
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<td>Value Added</td>
<td>$111.7 million</td>
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<td>Output</td>
<td>$298.0 million</td>
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Maritime Activity – America’s Central Port District

### Maritime-Related Activity

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<tr>
<th>Category</th>
<th>Value</th>
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<tr>
<td>Establishments</td>
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<tr>
<td>Jobs</td>
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<td>Income</td>
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<td>Value Added</td>
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<td>Output</td>
<td>$791.0 million</td>
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[Map showing Maritime-Related Employment]
Commodity Flows Information Sources and Analysis

- 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)

- 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

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**TOTAL IL 2017 Tonnage (000)**

<table>
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<tr>
<th></th>
<th>Outbound</th>
<th>Inbound</th>
<th>Intrastate</th>
<th>TOTAL</th>
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<tr>
<td>TOTAL IL</td>
<td>62,115</td>
<td>20,073</td>
<td>8,374</td>
<td>90,562</td>
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Top Illinois Commodity Flows on Waterways

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

- Food and Food Products
- Coal, Lignite, and Coal Coke
- Petroleum Products
- Chemicals excluding Fertilizers
- Sand, Gravel, Shells, Salt, and Slag
- Iron Ore, Iron, and Steel Waste and Scrap
- Crude Petroleum
Top Illinois Inbound Volumes in 2017 in Millions of Tons

- Chemicals excluding Fertilizers
- Chemical Fertilizers
- Petroleum Products
- Sand, Gravel, Shells, Salt, and Slag
- Primary Metal Products
- Primary Non-Metal Products
- Food and Food Products
- Lumber, Logs, Wood Chips, and Pulp
- Iron Ore, Iron, and Steel Waste and Scrap
- Non-Ferrous Ores and Scrap
Total Forecasted Volumes

Outbound 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

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

Large declines are in Energy Products

Total Tons 000

Commodity Detail

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2017</th>
<th>2045 Growth</th>
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<tbody>
<tr>
<td>Total</td>
<td>63,565,923</td>
<td>-3,295,369</td>
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<tr>
<td>Food</td>
<td>35,522,074</td>
<td>4,906,982</td>
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<tr>
<td>Sand and Gravel</td>
<td>4,618,904</td>
<td>1,210,446</td>
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<tr>
<td>Non Metal Mineral Products</td>
<td>302,130</td>
<td>326,634</td>
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<tr>
<td>Fertilizers</td>
<td>326,470</td>
<td>225,794</td>
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<td>Articles Base Metal</td>
<td>139,628</td>
<td>170,368</td>
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<td>Base Metals</td>
<td>548,750</td>
<td>162,379</td>
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<tr>
<td>Non Metallic Minerals</td>
<td>385,627</td>
<td>152,251</td>
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<tr>
<td>Metallic Ores</td>
<td>51,190</td>
<td>17,938</td>
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<tr>
<td>Chemical Products</td>
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<td>0</td>
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<td>Wood Products</td>
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<td>Gasoline</td>
<td>83,180</td>
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<td>Crude Petroleum</td>
<td>907,670</td>
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<td>Basic Chemicals</td>
<td>3,716,670</td>
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<td>Coal NEC</td>
<td>3,889,011</td>
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<td>Fuel Oils</td>
<td>2,357,277</td>
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<td>Coal</td>
<td>10,717,342</td>
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Growth in Inbound Volumes

**Commodity Detail**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2017</th>
<th>2045 Growth</th>
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<tr>
<td>Total</td>
<td>24,076</td>
<td>33,744</td>
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<tr>
<td>Fertilizers</td>
<td>3,780</td>
<td>6,252</td>
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<td>Base Metals</td>
<td>3,396</td>
<td>5,718</td>
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<td>Non Metal Mineral Products</td>
<td>2,146</td>
<td>4,098</td>
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<tr>
<td>Sand and Gravel</td>
<td>4,294</td>
<td>5,636</td>
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<tr>
<td>Basic Chemicals</td>
<td>2,520</td>
<td>3,338</td>
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<td>Food</td>
<td>761</td>
<td>1,551</td>
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<td>Wood Products</td>
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<td>899</td>
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<tr>
<td>Articles Base Metal</td>
<td>299</td>
<td>667</td>
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<tr>
<td>Chemical Products</td>
<td>97</td>
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<td>Non Metallic Minerals</td>
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<td>Metallic Ores</td>
<td>307</td>
<td>414</td>
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<td>Crude Petroleum</td>
<td>0</td>
<td>0</td>
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<td>Gasoline</td>
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<td>Coal NEC</td>
<td>2,199</td>
<td>1,756</td>
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<tr>
<td>Fuel Oils</td>
<td>2,043</td>
<td>1,244</td>
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Growth is led by Fertilizers, Base Metals, Non Metallic Mineral Products and Sand and Gravel

Declines are in Energy Products

Total Tons 000
Funding Options
Illinois Port Facilities Funding Support Programs

**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

Complete Facilities Inventory

Complete Economic Impact Analysis

Continue Stakeholder Outreach

Develop Industry Profiles

Prepare Inventory of Carriers and Operators

2nd Steering Committee Meeting - September