

OHIO MARITIME STRATEGY •

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OHIO DEPARTMENT OF
TRANSPORTATION

CPCS

Solutions for
growing economies

OHIO MARITIME STRATEGY RELEASED APRIL 2018

Ohio Maritime Strategy seeks to leverage Ohio's maritime transportation system to best enable Ohio's economic competitiveness and growth

Strategy to guide Ohio's Department of Transportation, other State and local agencies

Strategy available at
www.maritime.ohio.gov



PRESENTATION MAP



Ohio Maritime Transportation Study

Overview of Ohio's Maritime Transportation System

Ohio Maritime Strategy

What's Next?

OHIO MARITIME STUDY

Impetus two-fold:

- 1) Maritime mode under leveraged in State's Long Range Transportation Plan and Statewide Freight Plan
- 2) Governor's commitments to Great Lakes Maritime Strategy through the Conference of the Great Lakes Governors and Premiers

18 Month Ohio Maritime Study



Objective:

How to best leverage Ohio's MTS to enable Ohio's economic competitiveness and growth.

OHIO MARITIME STUDY

Three key questions:

1. What assets and services comprise Ohio's Maritime Transportation System (MTS)?
2. Who are the existing and potential users of Ohio's MTS and what are their needs?
3. What should be the State of Ohio's role in the MTS?

SEVEN WORKING PAPERS (WPS) INFORM STRATEGY

WP 1 - Ohio's Maritime Transportation System (MTS)

WP 2 - Governance of Ohio's MTS

WP 3 - Role of MTS in Ohio's Economy

WP 4 - MTS Demand and Associated Requirements

WP 5 - Options for Expanding Use of Ohio's MTS

WP 6 - MTS Support Programs in Other Jurisdictions

WP 7 - Ohio MTS Strategy

Working Papers available online:
www.maritime.ohio.gov



PRESENTATION MAP

Ohio Maritime Transportation Study

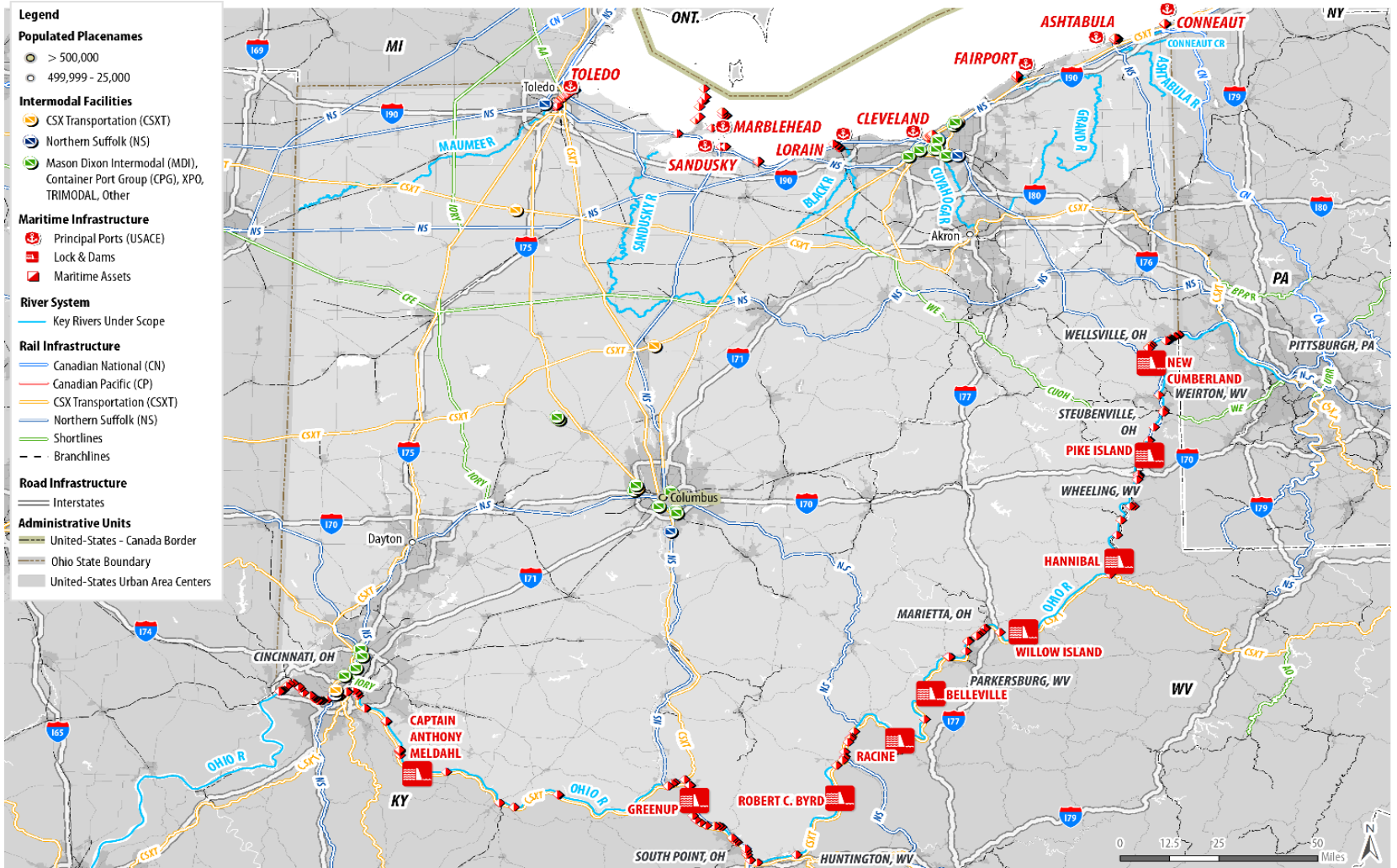


Overview of Ohio's Maritime Transportation System

Ohio Maritime Strategy

What's Next?

MARITIME KEY PART OF A MULTIMODAL TRANSPORTATION SYSTEM



OHIO TRANSPORTATION SYSTEM ASSETS

2 MAJOR WATERWAYS:



736 NAVIGABLE MILES OF WATERWAY, including 264.6 coastal miles along Lake Erie, 11 navigable miles along the Maumee River, 9 navigable miles along the Cuyahoga River, and 451.4 river miles along Ohio's portion of the Ohio River.



8 PRINCIPAL PORTS on Lake Erie, including the Ports of Cleveland and Toledo, and dozens and docks and terminals



162 COMMERCIAL DOCKS, the majority of which are along the Ohio River



MARITIME TRANSPORTATION SYSTEM TONNAGE

Legend

Populated Placenames

- > 500,000
- 499,999 - 25,000

Intermodal Facilities

- CSX Transportation (CSXT)
- Northern Suffolk (NS)
- Mason Dixon Intermodal (MDI), Container Port Group (CPG), XPO, TRIMODAL, Other

Maritime Infrastructure

- Principal Ports (USACE)
- Lock & Dams
- Maritime Assets

River System

- Key Rivers Under Scope

Rail Infrastructure

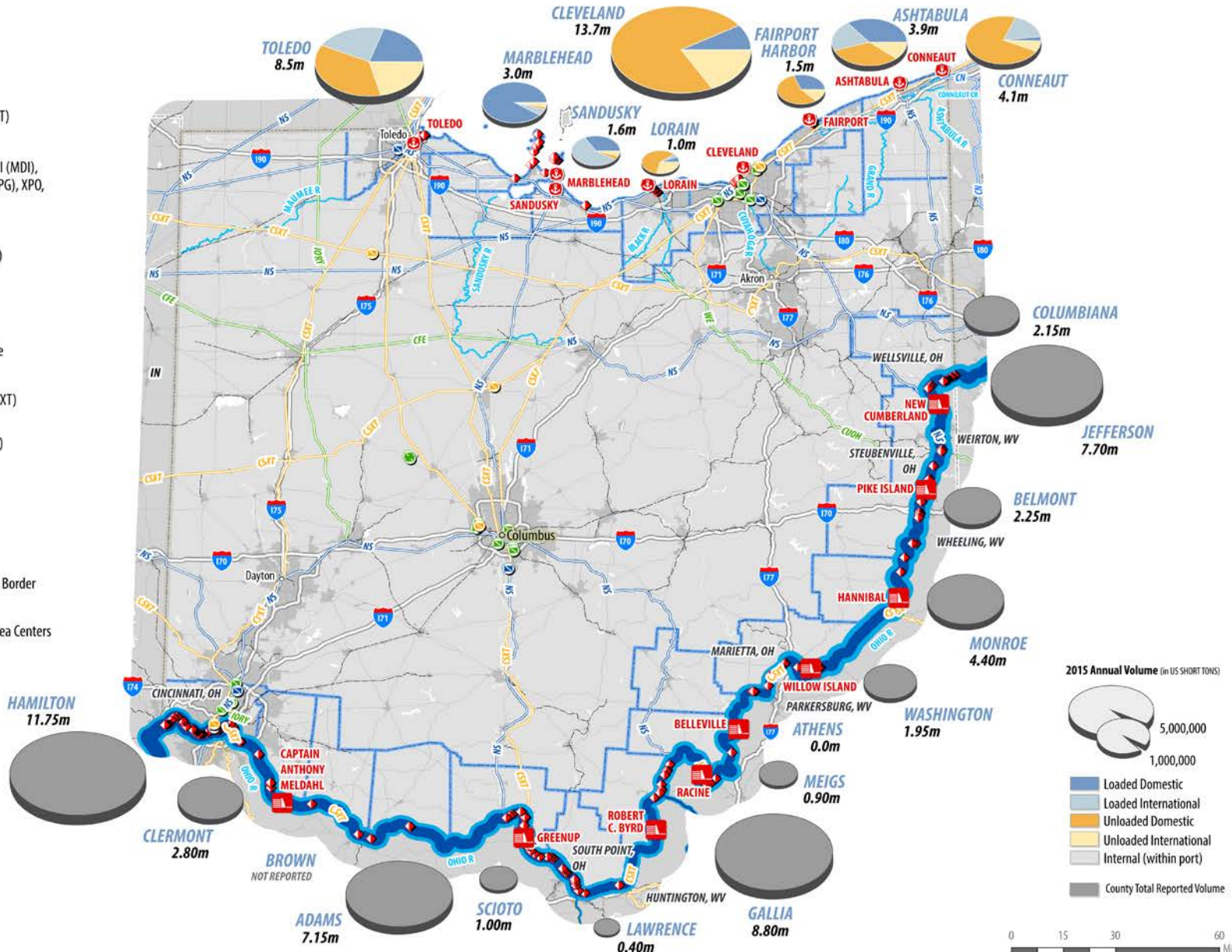
- CSX Transportation (CSXT)
- Northern Suffolk (NS)
- Canadian National (CN)
- Shortlines
- Branchlines

Road Infrastructure

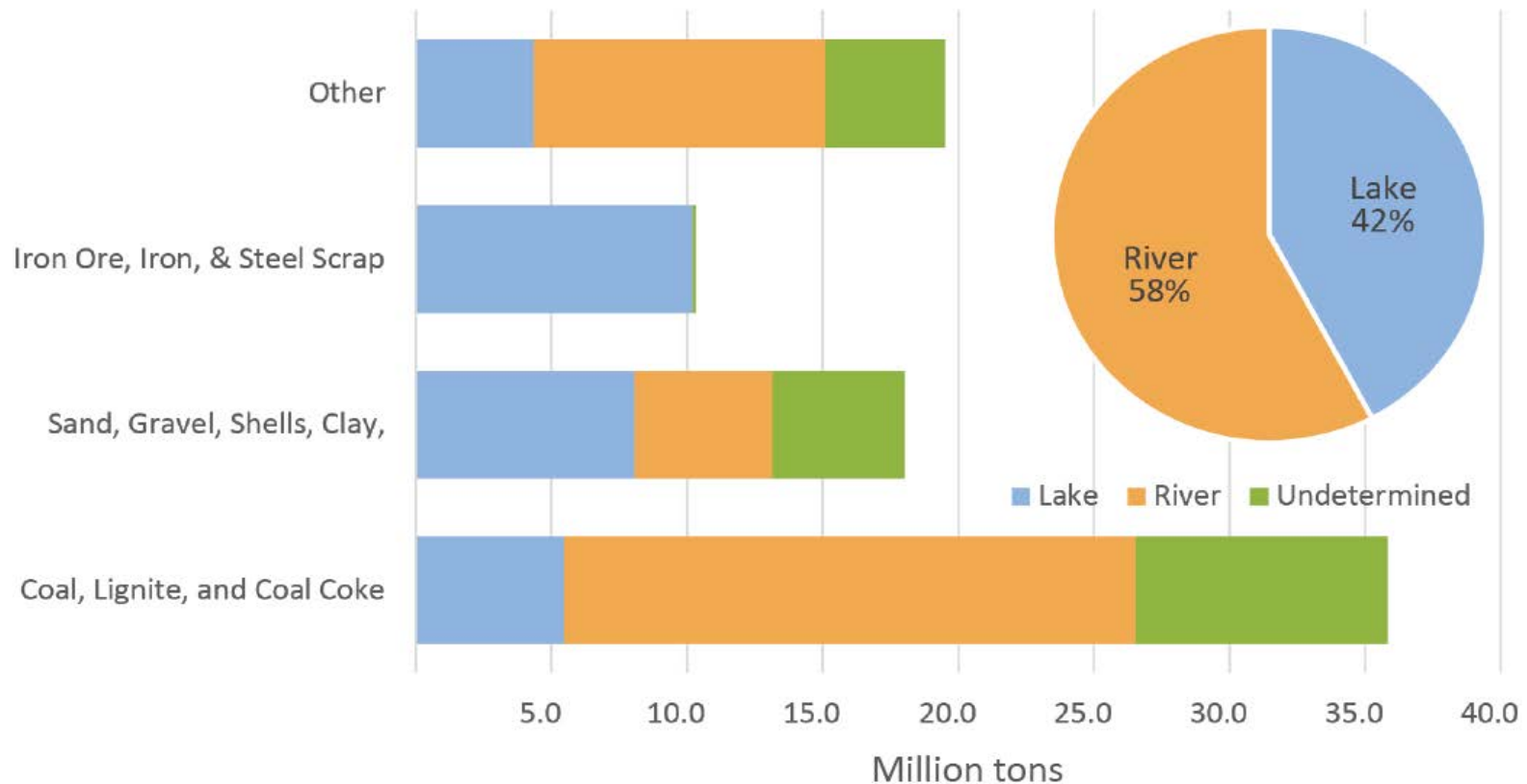
- Interstates

Administrative Units

- United-States - Canada Border
- Ohio State Boundary
- United-States Urban Area Centers



BULK COMMODITIES COMPRISE OVER 95% OF TRAFFIC BY VOLUME

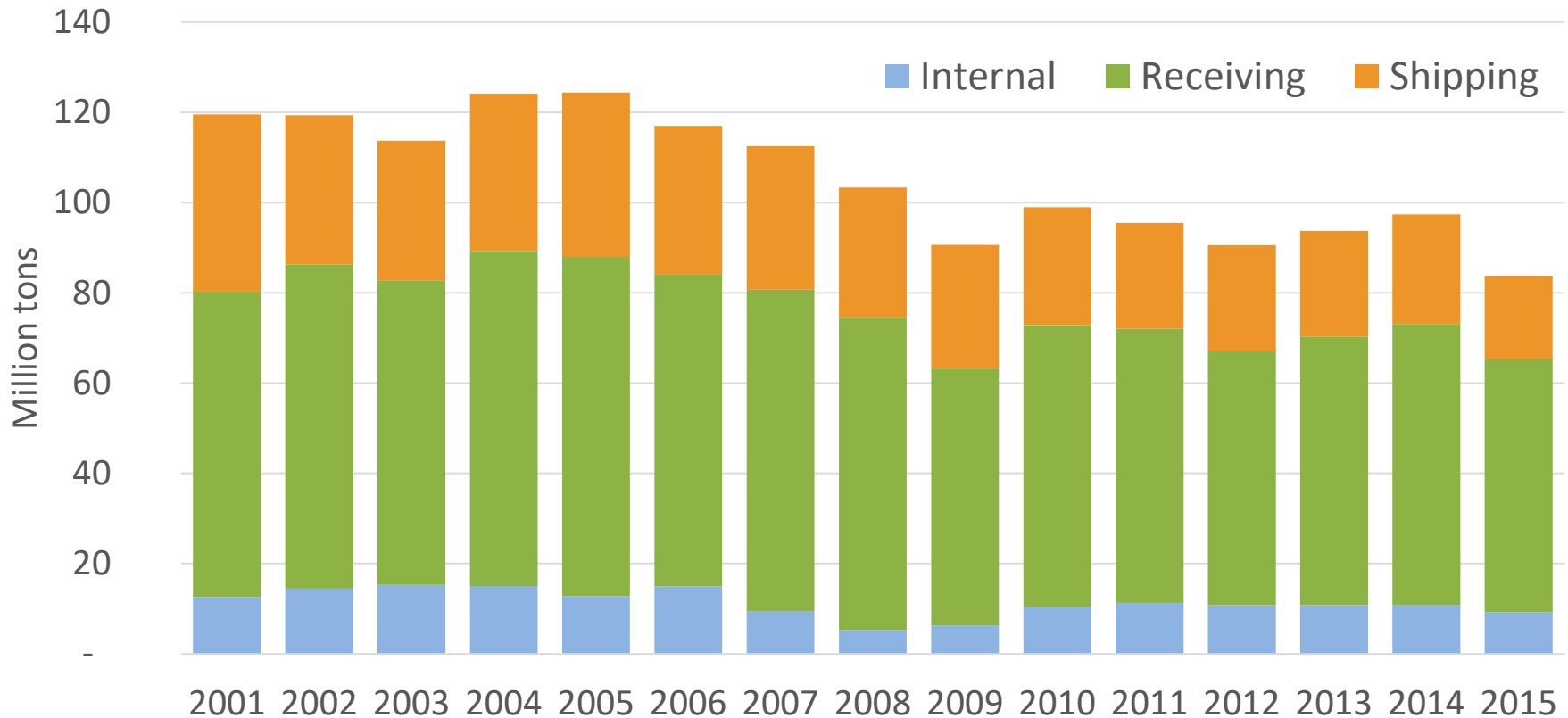


Source: CPCS Analysis of WCSC Data

Notes: Flows carried between Ohio and Pennsylvania, Illinois, Minnesota, or Indiana can either transit on the Great Lakes or on the Ohio River. These flows are categorized as "Undetermined." We have requested more detailed data from the US Army Corps of Engineers (USACE) to refine these figures.

TRAFFIC ON OHIO'S MARITIME TRANSPORTATION SYSTEM

Total traffic on Ohio's MTS has declined from 120M tons in 2001 to 83M tons in 2015, in large part due to decline in coal and iron ore shipments.

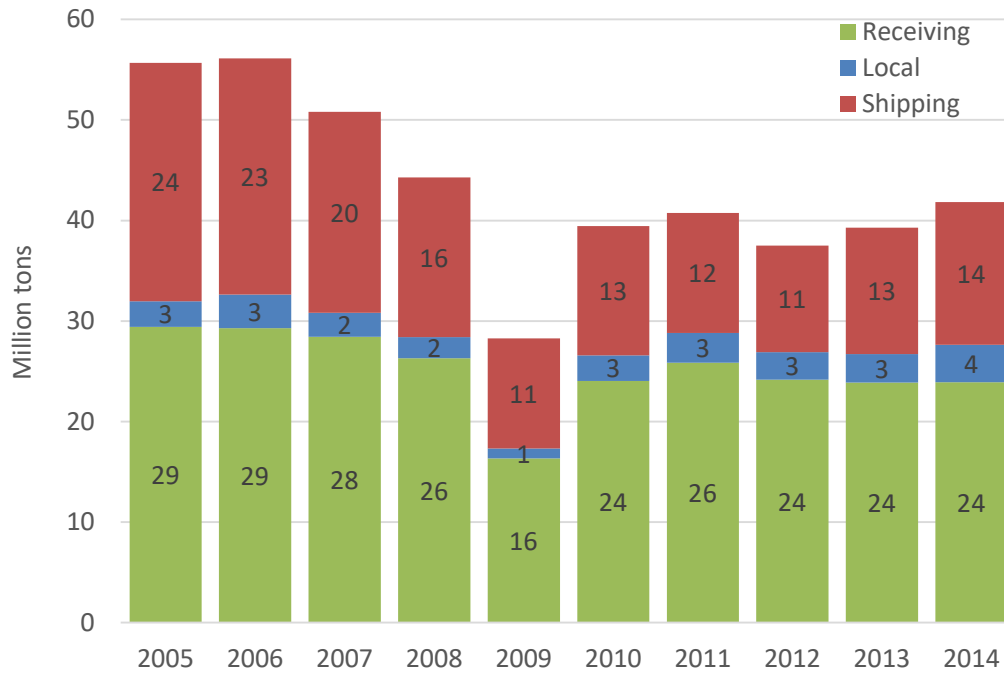


Source: CPCS analysis of WCSC data, flows having both an origin and a destination within Ohio are considered as being "Internal".

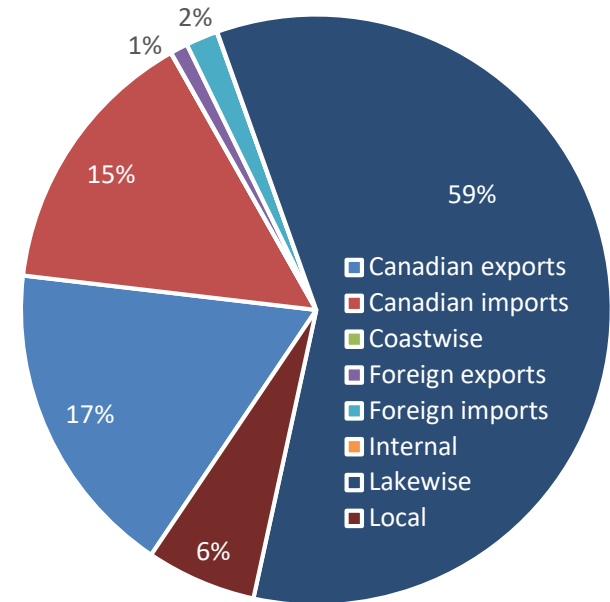
HISTORIC OHIO MARITIME SYSTEM TONNAGE - LAKE ERIE

Tons handled decreased by nearly 14 MT between 2005-2014. Nearly 60% of tons handled were carried between US Great Lakes ports.

Historic Lake Erie Port Tonnage
(2005-2014)




Average Traffic Split (2005-2014)



Source: CPCS analysis of WCSC data

Legend



Annual Volume in US SHORT TONS

- Loaded Domestic
- Loaded International
- Unloaded Domestic
- Unloaded International
- Internal (within port)

Populated Placenames

- > 500,000
- 499,999 - 25,000
- < 24,999

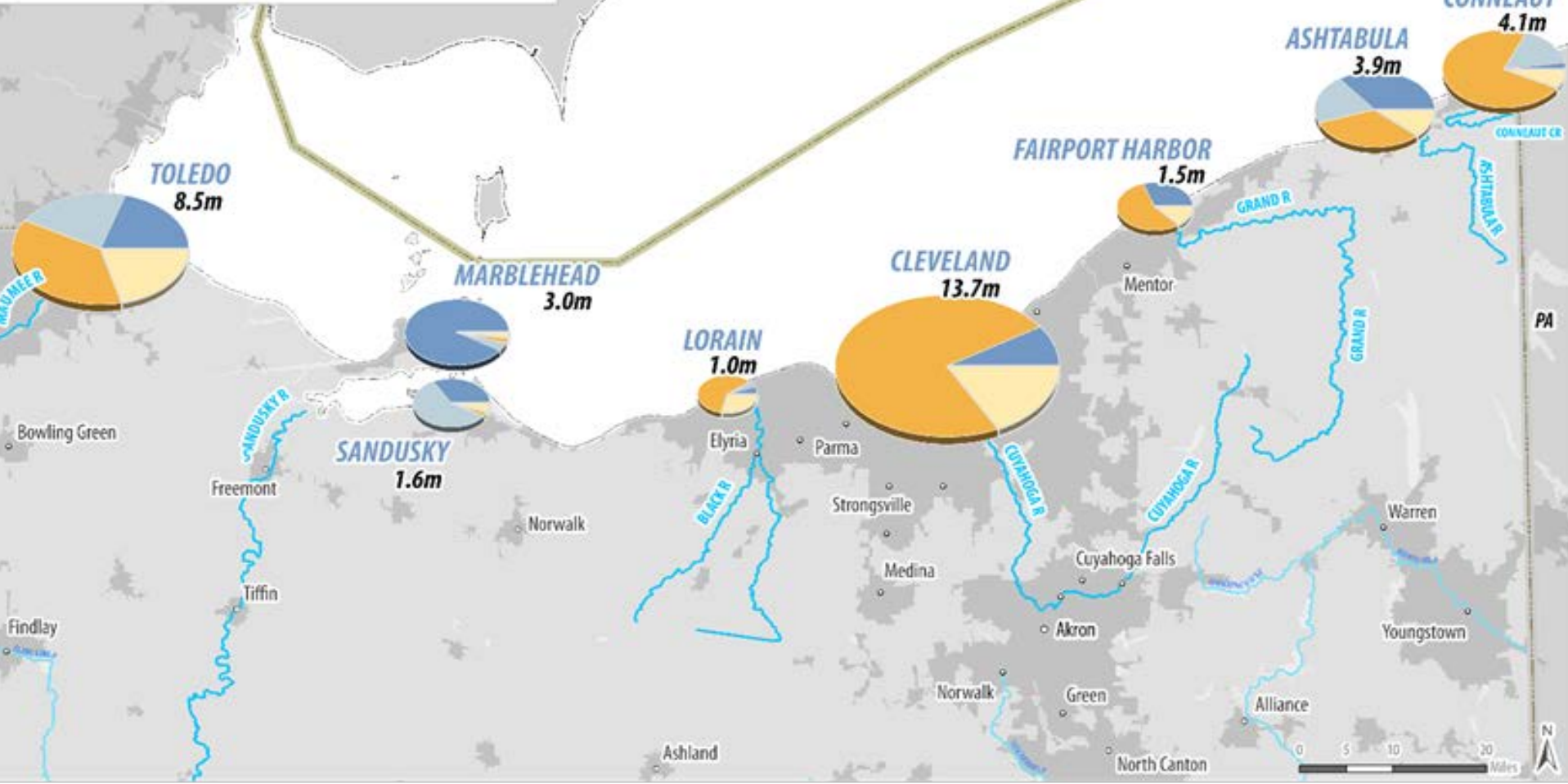
River System

- Key Rivers Under Scope
- Other large river systems

Administrative Units

- United-States - Canada Border
- Ohio State Boundary
- United-States Urban Area Centers

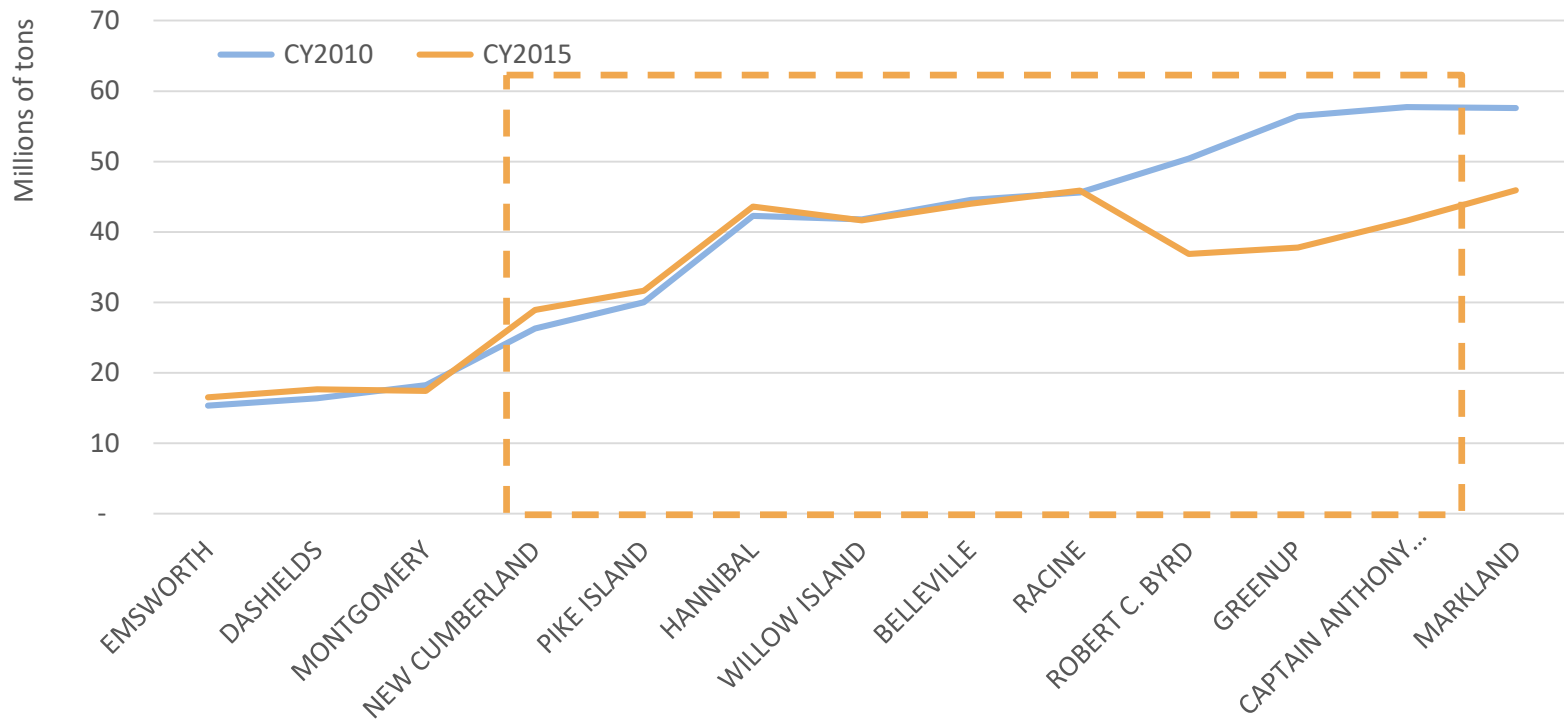
2015 data per USACE
Tons - 35.3 million
Value - \$3.6 billion





OHIO RIVER TRAFFIC (2010 AND 2015) - ALL COMMODITIES

Ohio River traffic has remained relatively stable (<10% change) for most Ohio River locks except for traffic through the Robert C. Byrd lock and dam, which saw a 27% drop over this period.

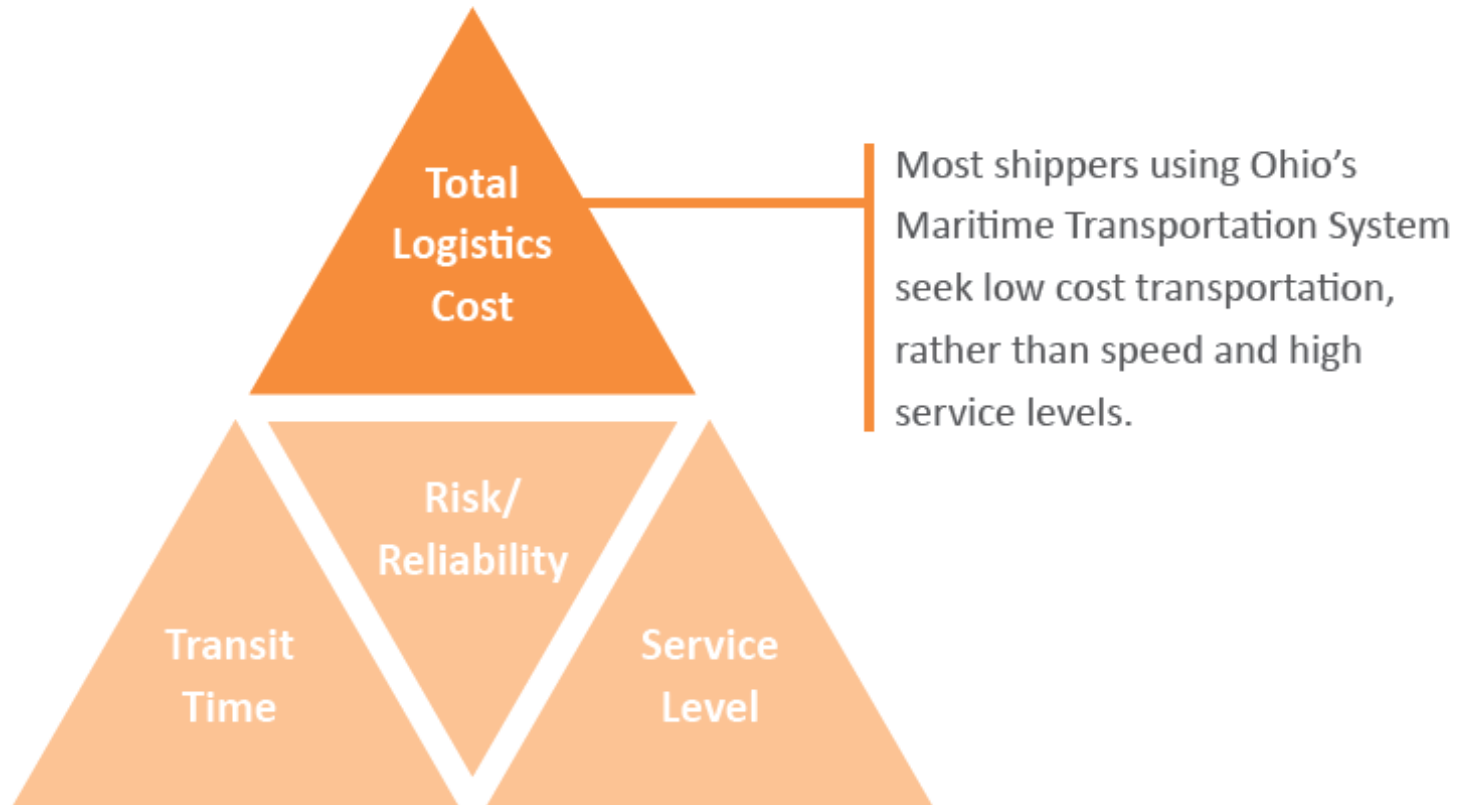


Source: CPCS analysis of USACE Ohio River Lock Commodity Report

Note: Ohio River traffic in this figure reflects traffic total river traffic numbers (lock by lock stats), as opposed to traffic with an origin and/or destination in Ohio.

WHY SHIPPERS USE MARITIME

SHIPPER/RECEIVER TRANSPORTATION PERFORMANCE NEEDS:



Source: CPCS

MTS IMPORTANT TO OHIO'S KEY INDUSTRIAL SECTORS

The use of Ohio's MTS is directly related to the cost competitiveness of Ohio's key industrial sectors

- Ohio's freight reliant industries produced \$238 billion of GDP in 2014, or close to 40 percent of Ohio's GDP
- These industrial sectors account for
 - close to 2 million jobs, or
 - about 35 percent of total employment in the State

TOP OHIO MARITIME SYSTEM COMMODITIES

Primary Sector	Top Ohio Maritime System Commodities					
	Coal, Ignite, and Coal Cake	Sand Gravel, Shells, Clay, Salt and Slag	Iron Ore, Iron, and Steel Scrap	Food and Food Product	Primary Metals	Petroleum Products
Construction and Civil Works		✓			✓	
Utilities and Energy	✓					✓
Manufacturing	✓	✓	✓		✓	
Petroleum and Chemicals						✓
Agriculture				✓		✓

ECONOMIC CONTRIBUTION OF MTS RELIANT SECTORS

Sectors Reliant on MTS	Sector GDP / Jobs (% of Ohio freight reliant sectors)	Examples of Ohio MTS Traffic (not comprehensive)
Construction & Civil Works	<ul style="list-style-type: none"> ● GDP: \$24 billion (11%) ● Jobs: 238,000 (12%) 	Limestone, other construction rocks and minerals, cement, asphalt, steel and rebar
Utilities and Energy	<ul style="list-style-type: none"> ● GDP: \$19 billion (7%) ● Jobs: 21,000 (1%) 	Coal, oil, frac sand, barite, pipe, drilling supplies
Primary Metals	<ul style="list-style-type: none"> ● GDP: \$5.6 billion (2%) ● Jobs: 40,000 (2%) 	Metal ore (e.g. iron ore), scrap metal, steel (coils, pig iron, slabs, blooms), aluminium
Heavy Manufacturing	<ul style="list-style-type: none"> ● GDP: \$37 billion (16%) ● Jobs: 305,000 (16%) 	Steel coils, coiled wire rod, steel plates and shapes, aluminum, chemicals, petroleum products, minerals and alloys
Petroleum, Chemical and Plastics Manufacturing	<ul style="list-style-type: none"> ● GDP: \$33 billion (14%) ● Jobs: 100,000 (6%) 	Chemicals, plastics, petroleum and coal products, rubber products

Source: CPCS analysis

STEEL INDUSTRY



Ohio's steel plants are responsible for more than 12% of the nation's value-added output for steel products from purchased steel



Photo Source: Thomas Ondrey, The Plain Dealer

Statement source: "Iron and Steel Industry Concentration in Ohio." Ohio Development Services Agency. January 2016

OTHER KEY GREAT LAKES CARGO

Project Cargo

Grain

Aggregates



Source: Boatnerd

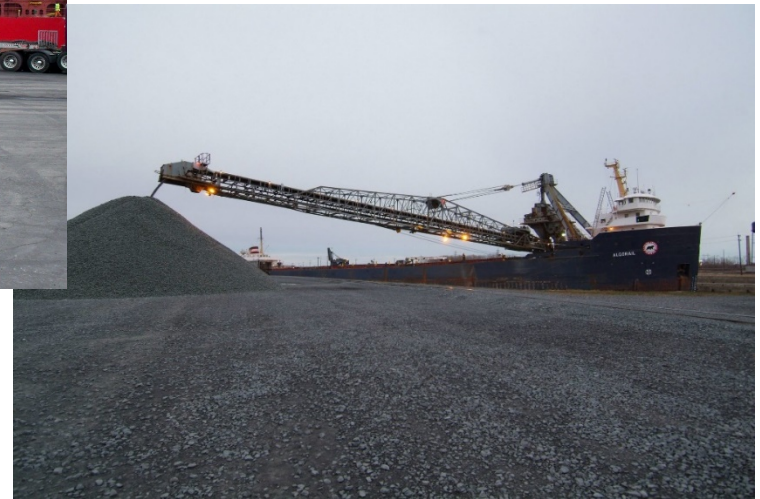
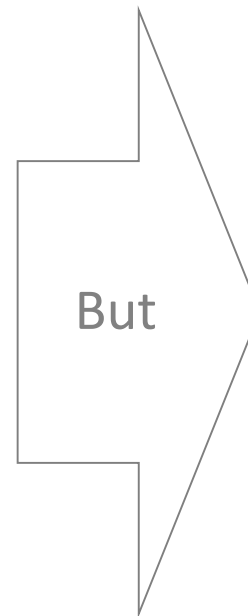
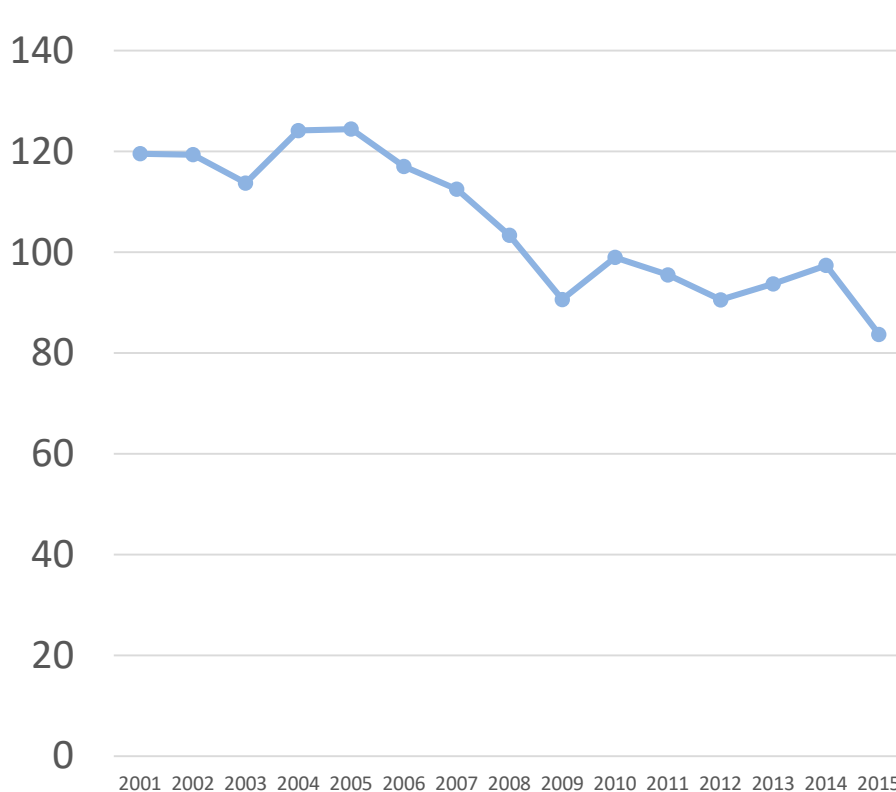


Photo Source: Midwest Terminals

TRAFFIC ON MTS EVOLVING

Big Picture: Traffic from many bulk sectors (e.g. coal, iron ore) are in structural decline, dragging down total MTS volumes. But niche opportunities are also emerging.

Ohio MTS Traffic - Total – Millions of Tons (2001-2015)



Growing sectors
Project Cargo
Chemicals
Plastics
Petrochemicals
Among others

Source: CPCS analysis of US Army Corps of Engineers Waterborne Commerce data

THERE ARE FEW CAPACITY LIMITATIONS ON LAKE ERIE

...But, there are capability limits to handling different types of cargo at specific ports and terminals and a range of other physical and operating constraints:

- Landside oversize/overweight cargo access limitations
- Last mile rail connections and other landside access issues
- On-dock capabilities and capacities (cranes)
- Draft issues at certain Lake Erie facilities

BARRIERS TO MTS COMPETITIVENESS ARE LARGELY INSTITUTIONAL

Examples include:

- Fees and charges (pilotage, and other fees, Seaway tolls, etc.)
- Seasonality of Great Lakes/Seaway System
- Institutional barriers to improved modal connectivity
- Limited recognition and integration of MTS in State and regional transportation and economic development plans
- Insufficient funds or funding mechanisms to address aging infrastructure

The role of the State of Ohio is largely limited to broader transportation policy and planning efforts and making targeted MTS-related investments (connectors, cranes, etc.)

PRESENTATION MAP

Ohio Maritime Transportation Study

Overview of Ohio's Maritime Transportation System

 Ohio Maritime Transportation Strategy

What's Next?

KEY TAKEAWAY FOR OHIO MARITIME TRANSPORTATION STUDY

The low-cost maritime transportation option provided by Ohio's MTS remains critical to enabling the competitiveness of many of Ohio's key economic sectors – without which Ohio's economy would suffer.

Bottom Line: The maritime option in Ohio needs to be protected and made as competitive as possible. Near term focus should be on enabling better connectivity where maritime provides a competitive advantage and is in line with market needs.

OHIO MARITIME STRATEGY

- 1. Leverage and build on the Ohio Maritime Study in policy and planning**
- 2. Provide leadership and coordination**
- 3. Engage with federal stakeholders to remove institutional barriers to MTS performance**
- 4. Promote the Marine Transportation System.**
- 5. Improve access to existing funding programs and agencies**
- 6. Prioritize State investment in Ohio's MTS in accordance to clear principles.**

OHIO MARITIME STRATEGY

1. Leverage and build on the Ohio Maritime Study in policy and planning

ODOT can leverage the Ohio Maritime Study and underlying research and findings to better integrate Ohio's MTS in state multimodal transportation policy development and planning.

Specific actions include:

- Proactively plan investments in landside accesses to ports and terminals.
- Build greater awareness of Ohio's MTS assets, capabilities, and opportunities within JobsOhio and other State agencies.
- Support a new principal port statistical area between Huntington and Pittsburgh.

OHIO MARITIME STRATEGY

2. Provide leadership and coordination

ODOT should continue to be a key point of contact for Ohio's maritime sector stakeholders, and provide leadership and coordination in bringing the maritime community together.

Specific actions include:

- Disseminate information, advocate for the MTS sector within the State of Ohio, and also coordinate engagement with industry through forums or user groups.
- Sustain engagement with Ohio's MTS stakeholders to identify evolving system priorities and to increase participation of the maritime community in broader freight planning activities.

OHIO MARITIME STRATEGY

3. Engage with federal stakeholders to remove institutional barriers to MTS performance

Maintain relationships with federal government agencies to address regulatory, policy/planning, funding and other institutional issues.

Specific actions include:

- Focus Federal engagement on Lake Erie issues through Council of the Great Lakes Governors and Premiers.
- Federal engagement relating to the Ohio River component of the MTS should focus on stable funding for locks and dams, and interaction with US Army Corps of Engineers and USDOT Maritime Administration.

OHIO MARITIME STRATEGY

4. Promote the Marine Transportation System

Work closely with JobsOhio and other economic development agencies in the State to promote Ohio's MTS as a valuable resource in certain economic development activities.

Specific actions include:

- Collaborating closely/systematically with JobsOhio in investment attraction initiatives.
- Providing a specific point of contact within ODOT for economic developers who need information regarding marine transportation options.
- Facilitating, or otherwise providing seed funding for industry-led Ohio MTS promotion activities and related meetings.

OHIO MARITIME STRATEGY

5. Improve access to existing funding programs and agencies

Promote and leverage the full range of existing state and federal funding programs and agencies that can bolster the performance and use of Ohio's MTS.

Specific actions include:

- Develop a comprehensive list of existing programs, agencies and related tools that can be accessed by Ohio MTS stakeholders and related eligibility criteria (Federal and State).
- Continue to be reactive and flexible when large economic development opportunities arise in order to secure large private sector investments by companies that need Ohio MTS access.

OHIO MARITIME STRATEGY

6. Prioritize State investment in Ohio's MTS

Specific actions include:

- Investments in public ports/general purpose terminals (distinct from single use private facilities).
- Investments that address, or driven by, realistic market needs.
- Prioritize State investments in projects that have a strong private sector/local government contribution (i.e. "skin in the game").
- Projects that encourage concentration of traffic in key MTS facilities.
- Investments that are in line with strategic state economic development objectives.

PRESENTATION MAP

Ohio Maritime Transportation Study

Overview of Ohio's Maritime Transportation System

Maritime System Issues & Needs

Ohio Maritime Transportation Strategy



What Comes Next?

IMPLEMENTING THE OHIO MARITIME STRATEGY

Short term actions include:

- Communicate Ohio Maritime Strategy
- Create Lake Erie and Ohio River Users Groups
- Engage with Federal stakeholders to remove institutional barriers
- Engage with JobsOhio to increase awareness of Ohio MTS in investment attraction
- Develop resource guide on available funding programs

QUESTIONS



Ohio Maritime Strategy available at www.maritime.ohio.gov

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