

Project Status Update

December 10, 2013



Delaware Department
of Transportation



Maryland Department
of Transportation



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Purpose

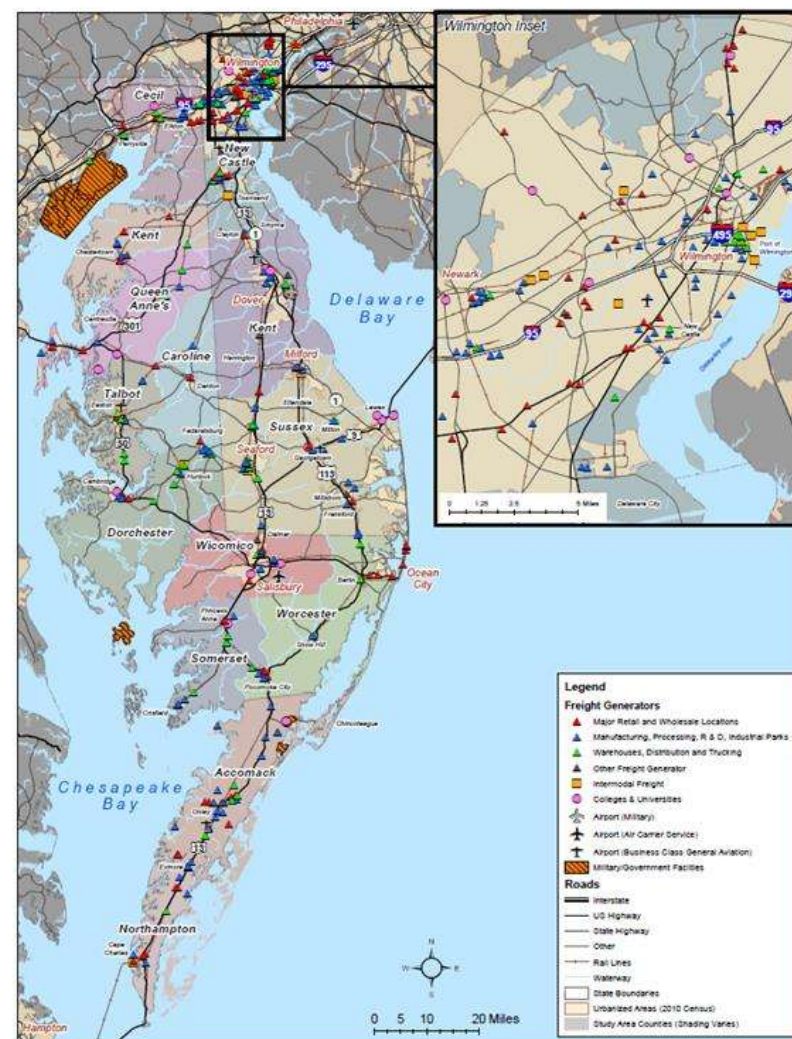
The overall purpose of the *Delmarva Freight Plan* is to provide relevant information that will assist the state DOTs, area MPOs, and other stakeholders in making well-informed decisions on freight infrastructure investments and freight-related policies. To accomplish this task, the study aimed to:

- Better understand existing and anticipated freight flows, issues, and concerns within the project area and to/from the surrounding areas
- Comprehensively evaluate the multimodal/intermodal freight transportation system while encompassing commodity flows via truck, rail, water, air, and pipeline
- Explore and analyze future freight-planning scenarios through year 2040 with an emphasis on a performance-driven approach
- Identify relevant infrastructure, policies and regulation changes or other investments that seek to enhance the safety, performance, and efficiency of freight travel in the region, as well as related environmental impacts and economic opportunities

DELMARVA FREIGHT STUDY

What is the Delmarva Freight Study?

- A **multi-state, multi-MPO** effort to develop a comprehensive, multi-modal evaluation of the freight transportation system and its operations along the Delmarva Peninsula.
- According to MAP-21, States are **highly recommended** to have a freight plan which can improve their ability to meet National Freight Policy goals & objectives.
- Not a requirement, but in order for some projects to be eligible for fed \$, they **must come from a freight plan!**



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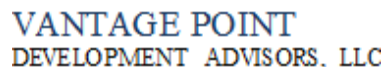
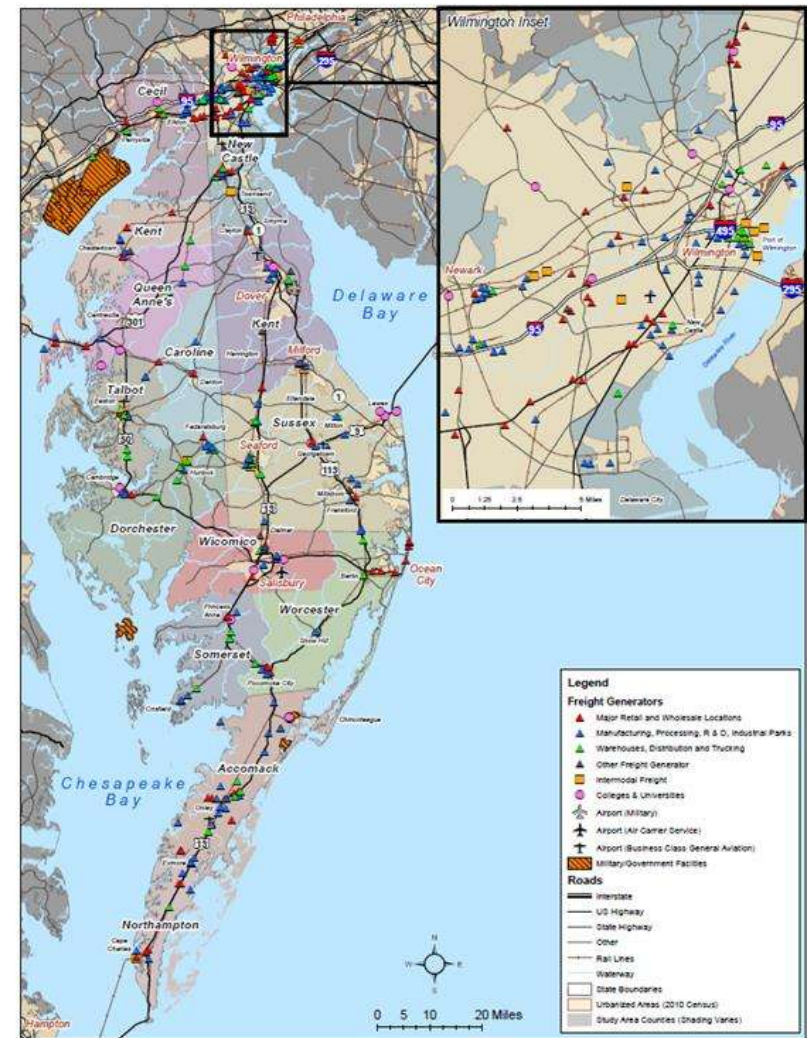
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Key Functions of Study

- Collect Most Recent **Commodity Flow Data**:
 - Transearch, FAF3,
 - STBWaybill
- **Conduct Outreach** (Agencies, Industries & Shippers)
- Develop **CUBE Cargo Model**
- Generate **Current/Future Freight Forecasts** for Multiple Modes (Truck, Rail, Water, Pipeline)
- Analyze **Future Freight Scenarios**

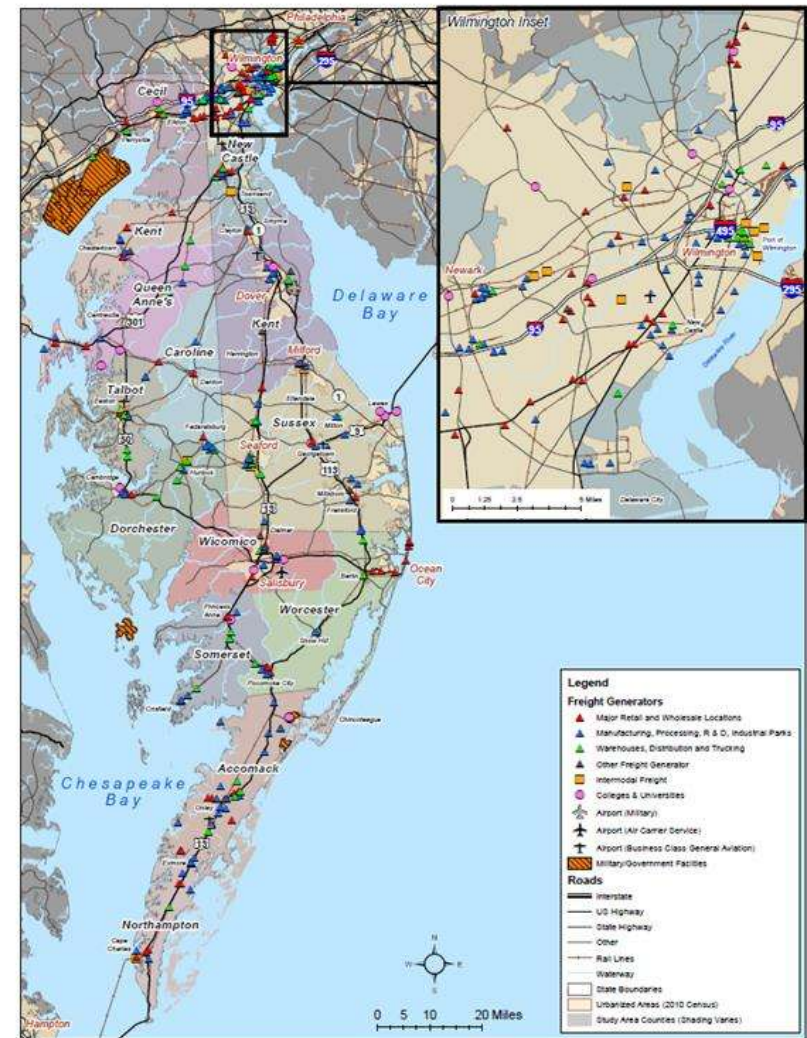


The Plan will be:

- ❖ Multi-state / multi-MPO freight plan
- ❖ Multimodal freight transportation infrastructure
- ❖ Federally-compliant under MAP-21

❖ Performance-oriented plan

- ✓ Freight connectivity, mobility, and accessibility
- ✓ Safety and security
- ✓ Sustainability and environmental stewardship
- ✓ Economic vitality
- ✓ System management, operations, and maintenance



Plan Highlights

Critical background information or unique components that have been woven throughout this plan include:

Federal Freight Planning Compliance: The Moving Ahead for Progress in the 21st Century act (MAP-21) was signed into law by the President on July 6, 2012. MAP-21 sections 1115 through 1118 outline new details for a National Freight Policy, the prioritization of projects to improve freight movements, the establishment of state freight advisory committees, and related requirements for state freight plans. The Delmarva Freight Plan fulfills these requirements while also incorporating related interim guidance from the U.S. Department of Transportation (USDOT), as well as established freight planning practices from the Federal Highway Administration (FHWA).

MAP-21 Section 1118 requires that a State Freight Plan developed pursuant to Section 1118 include, at a minimum, the following elements:

- An identification of significant freight system trends, needs, and issues with respect to the state;
- A description of the freight policies, strategies, and performance measures that will guide the freight-related transportation investment decisions of the state;
- A description of how the plan will improve the ability of the state to meet the national freight goals established under section 167 of title 23, United States Code;
- Evidence of consideration of innovative technologies and operational strategies, including intelligent transportation systems, that improve the safety and efficiency of freight movement;
- A description of improvements that may be required to reduce or impede roadway deterioration in the case of routes on which travel by heavy vehicles (including mining, agricultural, energy cargo or equipment, and timber vehicles) is projected to substantially deteriorate the condition of roadways; and
- An inventory of facilities with freight mobility issues, such as truck bottlenecks, within the state, and a description of the strategies the state is employing to address those freight mobility issues.

Chapters:

Chapter 1: Introduction

Chapter 2: Existing Economic Context

Chapter 3: Existing Commodity Flows

Chapter 4: Existing Transportation System

Chapter 5: Existing Freight Programs and Coordination

Chapter 6: Freight Trends, Needs and Issues

Chapter 7: Future Freight Planning Scenarios

Chapter 8: Recommended Action Plan

Chapter 9: Summary & Conclusion

Chapter 10: Appendix

Overall Goal: To answer ongoing “What if” Scenarios

“WHAT IF” Examples:

... NEC corridor
restrictions continue?

... coal demand
ceased?

... barge travel
was restricted?

... truck volumes
and maintenance
needs increased?

What would the future look like if freight transportation on the peninsula was constrained by a loss or reduction of key multimodal elements or opportunities?

WHAT IF ...

... NEC corridor restrictions continue?

... at-grade rail / highway crossing conflicts increased?

... the NS Delmarva Secondary became a

... coal demand ceased?

7 ... Wicomico River barge travel was restricted due to funding / dredging constraints?

8 ... Pocomoke River barge travel was restricted due to funding / dredging constraints?

... ports had fewer

... truck volumes and maintenance needs increased?

Constraint Scenario w/ Accelerated Employment:

What would this future look like in 2040 with accelerated employment growth in certain industries?

Area Wide

3 9 10



Delmarva
Freight
Plan

WRA-4-24-2013

“WHAT IF” Examples:

... the Chesapeake
Connector was completed?

... a new
intermodal facility
was constructed?

... Post-Panamax
trends directly impact
the peninsula?

... higher freight
volumes conflicted
with other users?

What would the future look like if freight transportation on the peninsula was enhanced or expanded by key multimodal elements or opportunities?

WHAT IF ...

... the Chesapeake Connector was completed?

3 ... the NS Indian River Secondary became a shortline railroad (from Harrington to Frankford)?

... a new intermodal facility was constructed?

7 ... BCRR car float operations were stabilized or expanded?

8 ... Post-Panamax shipping trends directly impacted the region (e.g., via Baltimore or Norfolk)?

9 ... short sea shipping opportunities or the marine highway concept flourished?

... a new

... AS

Enhancement Scenario w/ Trendline Growth:

What would this future look like in 2040 with trendline economic or demographic changes?

Enhancement Scenario w/ Accelerated Employment:

What would this future look like in 2040 with accelerated employment growth in certain industries?

Area Wide

4 8 9 11 12



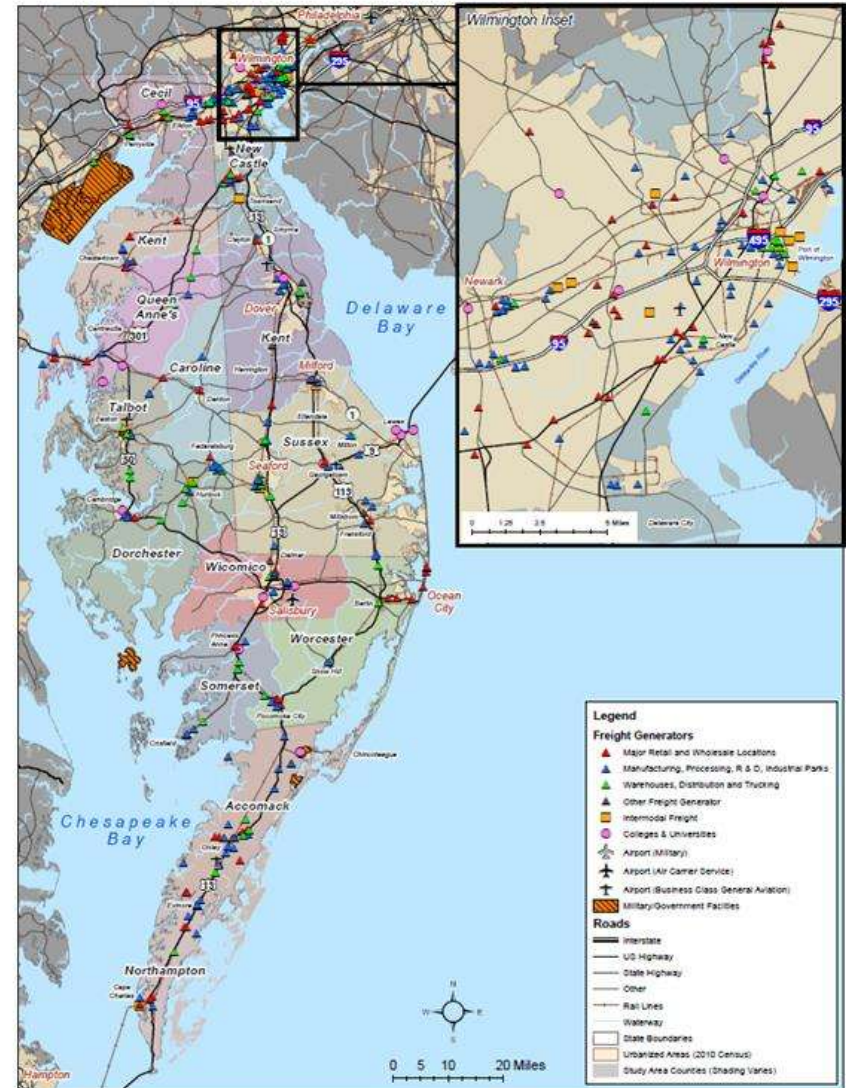
Delmarva
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Plan

WRA-4-24-2013

2.0 Economic Context

Latest Draft 10/9/2013

- ❖ Summarizes economic insights from previous meetings
- ❖ Presents population and employment forecasts through 2040
- ❖ Locates over 430 major freight generating industry/business sites (*Exhibit 2.8*)
- ❖ Ties global economic perspectives with potential relevance for the peninsula



Despite Economy, Freight Generating Industries Growing

Industry	Employment				Output			
	Thousands of Jobs		2004-2014 Change		Billions of Constant 2000 Dollars		2004-2014 Change	
	2004	2014	#	%	2004	2014	#	%
Transportation and Warehousing	4,250	4,756	506	11.9%	619	889	270	43.6%
Warehousing and Storage	556	694	138	24.8%	359	565	206	57.4%
Transit and Ground Passenger Transportation	385	476	91	23.6%	309	406	97	31.4%
Scenic and Sightseeing Transportation and Support	112	123	11	9.8%	107	152	45	42.1%
Trucking Transportation, Couriers, Messengers	135	148	13	9.6%	224	317	93	41.5%
Air Transportation	515	560	45	8.7%	130	213	83	63.8%
Water Transportation	57	58	1	1.8%	224	269	45	20.1%
Rail Transportation	224	215	-9	-4.0%	432	599	167	38.7%

Source: Transportation Industry, Department of Labor, 2007

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Trucking will lead the way, increasing faster than automobile growth.

Exhibit 2.13 – Truck Revenue Forecasts (2011-2023)

Category	Billions of Dollars			Average Annual Growth Rate		
	2011	2017	2023	2012-2017	2018-2023	2012-2023
Truckload	280.2	382.9	464.4	6.1%	3.5%	4.8%
LTL	46.9	68.2	90.7	7.6%	5.5%	6.5%
Private	276.8	355.6	414.0	4.8%	2.7%	3.7%
Total	603.9	806.7	969.0	5.6%	3.4%	4.5%

Source: U.S. Freight Transportation Forecast to 2023, ATA, 2012

Status Updates

Stakeholder Outreach

❖ Online Survey: General Comments

- 36% Miscellaneous Infrastructure Improvements
- 25% Truck Restrictions (height, weight, width, hazmat)
- 17% Northeast Corridor Constraints
- 11% Rail Restrictions (height, weight, width)
- 11% Short Line Railroad Support



SurveyMonkey.com
because knowledge is everything

Areas of Concern (from Outreach):



Rail

- NEC / Chesapeake Connector
- Delmarva Secondary / Indian River Coal
- 75 Rail Car Capacity
- Cape Charles Rail Car Float



Ports

- Post-Panamax
- New Markets



Inland Waterways

- Nanticoke & Wicomico Rivers
- Spoil Sites for Dredged Materials

Motor Freight

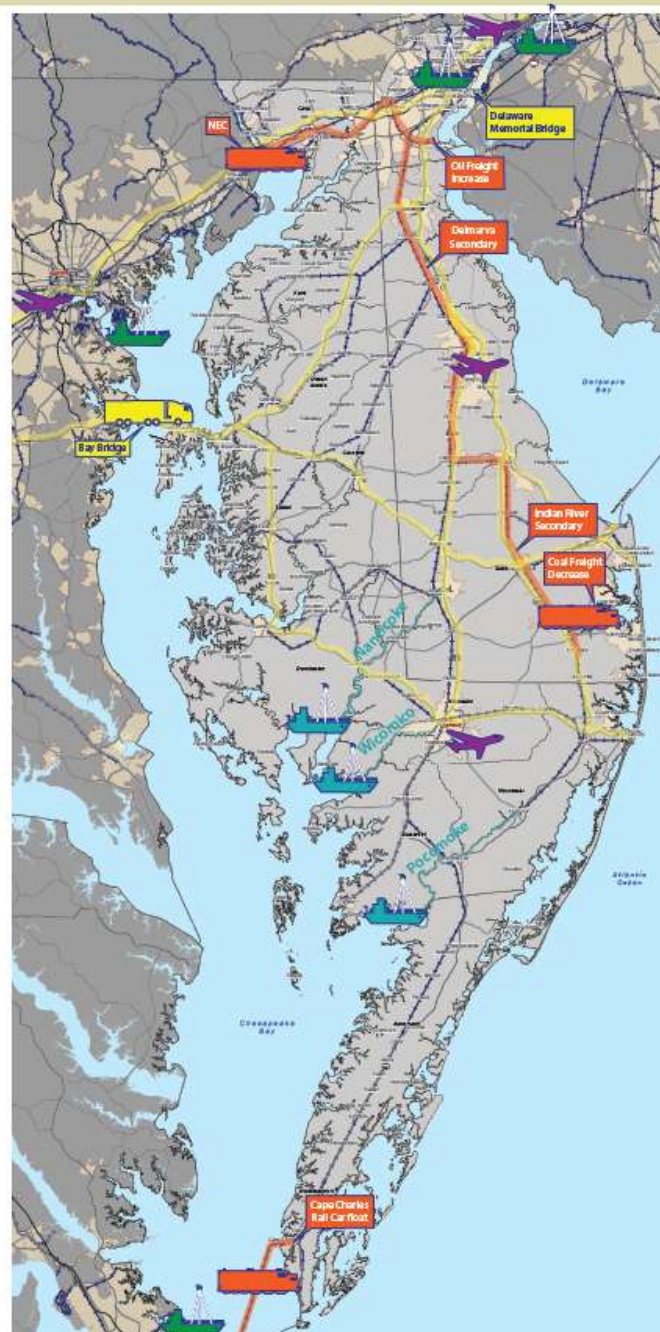
- Seasonal / Tourist-Based Congestion
- Secondary Roads / Bridges
- Fuel Taxes / Toll Rates / Weight Limits
- Parking & Rest Areas



Air Freight

Freight-Related Areas of Concern*

* as identified by project-specific outreach to-date



Rail

- NEC / Chesapeake Connector
- Delmarva Secondary
- Delaware City Refinery / Oil Freight
- Indian River Secondary / Coal Freight
- 75 Rail Car Capacity
- Cape Charles Rail Car Float



Ports

- Access to Key Ports (Wilmington, Baltimore, Norfolk, or Philadelphia)
- Post-Panamax
- New Markets



Inland Waterways

- Nanticoke / Wicomico / Pocomoke Rivers
- Spoil Sites for Dredged Materials



Motor Freight

- Highway - Rail Grade Crossings
- Seasonal / Tourist-Based Congestion
- Secondary Roads / Bridges
- Fuel Taxes / Toll Rates / Weight Limits
- Parking & Rest Areas



Air Freight

- Access to Key Airports
- Access to DAFB Civil Air Terminal

Areas of Opportunity (from Outreach):



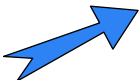
Growth & Industry

- Cecil County
- New Castle County
- Sussex County
- Wicomico County
- DAFB Civil Air Terminal



Site-Specific Issues

- PBF Energy Rail Expansion
- Dogfish Head Brewery Expansion
- Seaford Multimodal Connectivity
- Salisbury Multimodal Connectivity
- NASA Wallops Flight Facility



Import-Export

- Fracking Materials to Marcellus Shale
- Crude Oil from Canada or Midwest
- Grain from Midwest
- Frozen Poultry to Russia



Enterprise Zones / Other Incentives

Freight-Related Areas of Opportunity*



* as identified by project-specific outreach to-date

Growth & Industry

- Cecil County / I-95 / NEC
- New Castle County / I-95 / NEC
- Sussex County / Seaford Hub
- Wicomico County / Salisbury Hub

Site - Specific Issues

- PBF Energy Rail Expansion
- DAFB Civil Air Terminal
- Dogfish Head Brewery Expansion
- Seaford Multimodal Connectivity
- Salisbury Multimodal Connectivity
- NASA Wallops Flight Facility



Import - Export

- Fracking Materials to Marcellus Shale
- Crude Oil from Canada or Midwest
- Oil Product Exports
- Grain from Midwest
- Frozen Poultry Exports
- Other International Trade



Economic Development Strategies

- Enterprise Zones
- Economic Incentives
- Business Programs



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Data Collection

Transearch (IHS Global Insight)
FAF 2, FAF 3
STB Waybill (Rail)



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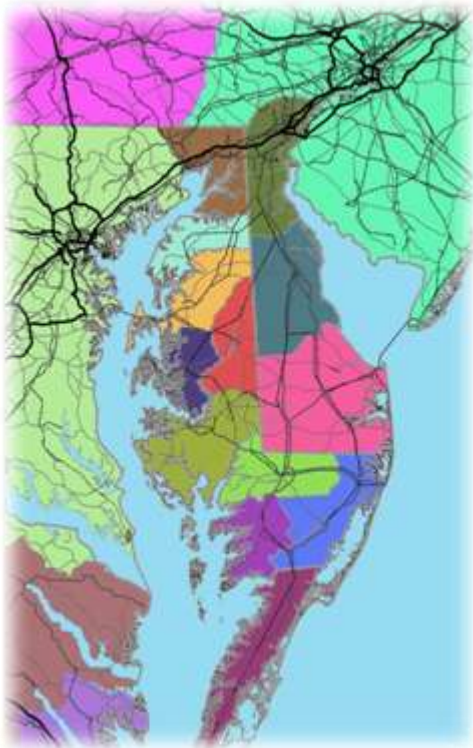


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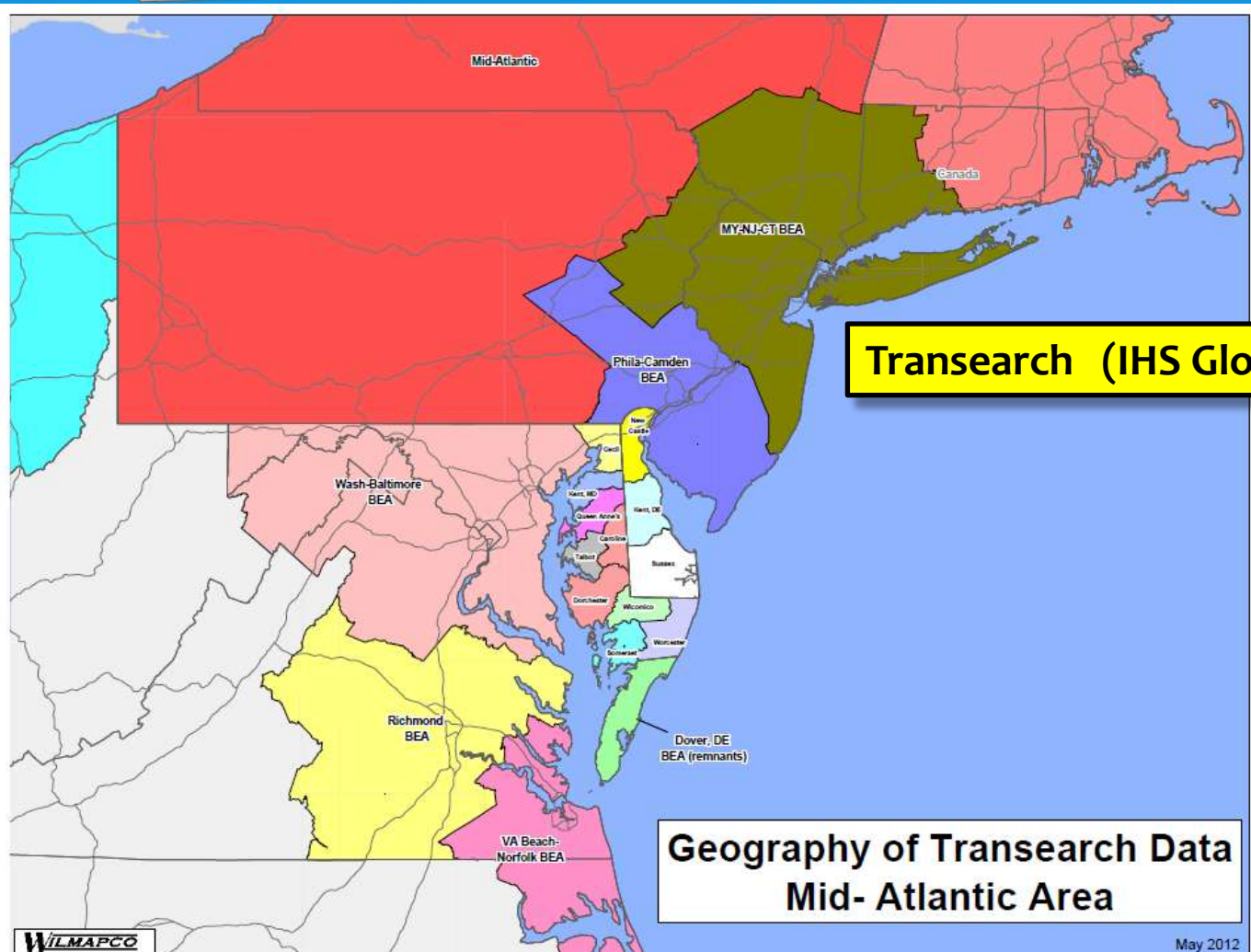
Data Collection

Commodity Flow Data

Transearch	FAF
County-level data	Larger regions



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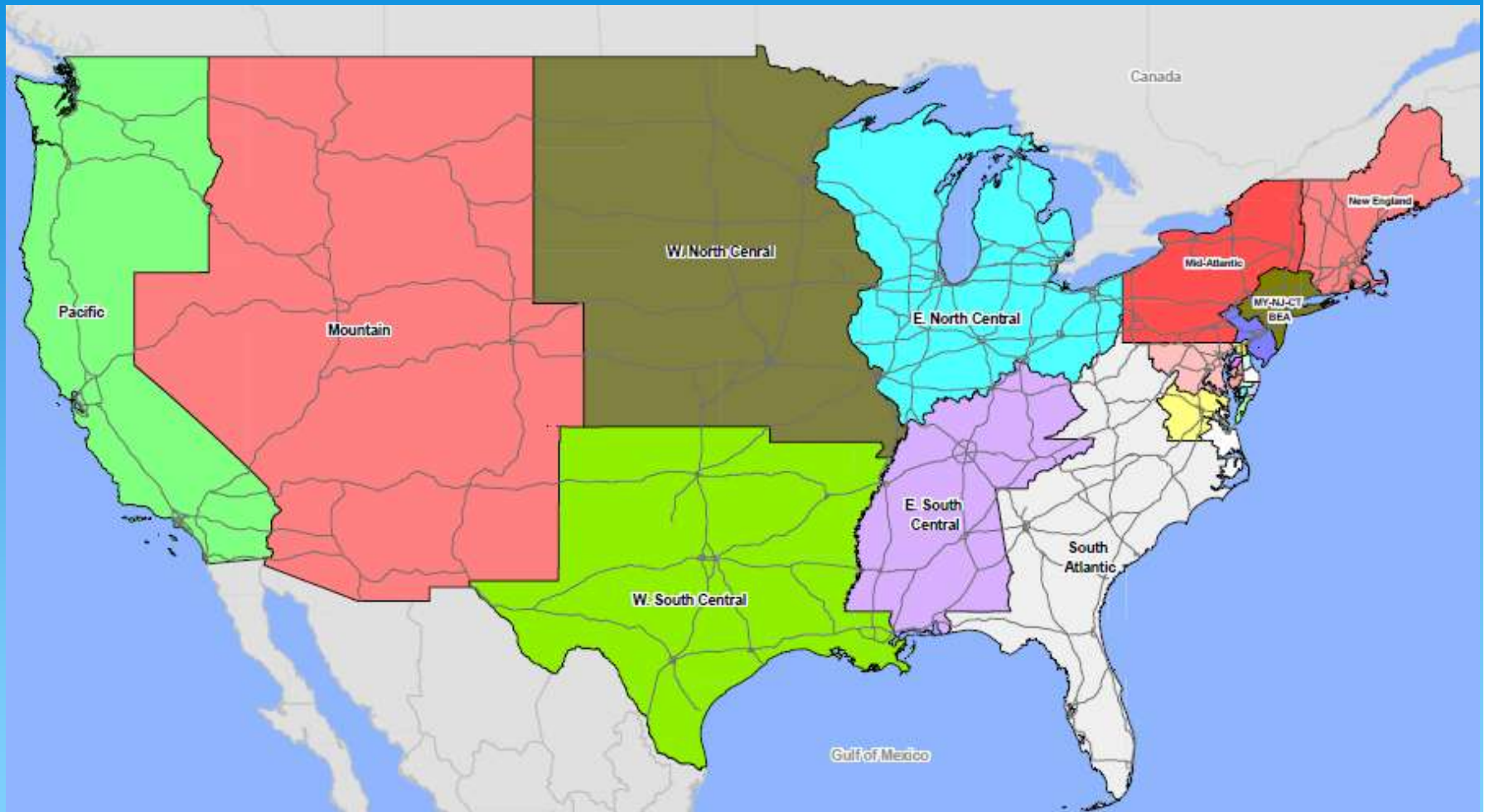


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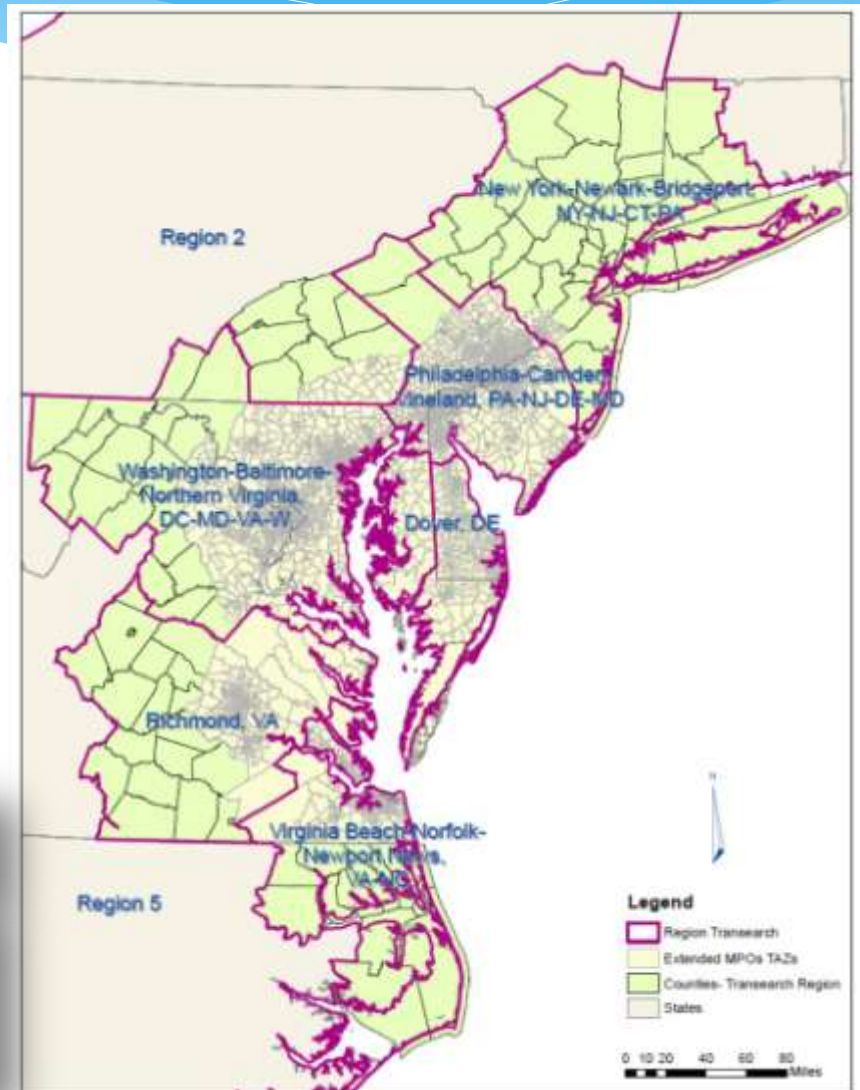
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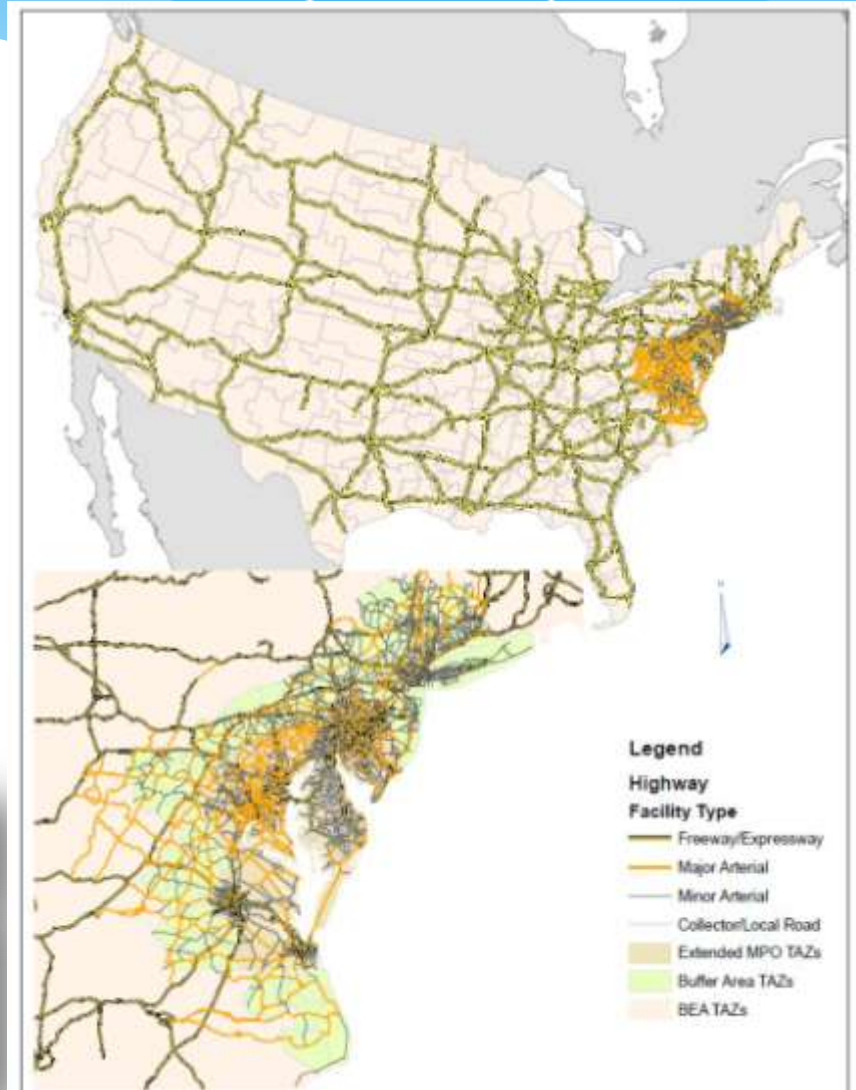
Model Boundaries

- ❖ Based on IHS Transearch Regions
- ❖ 6 BEA's
- ❖ Additional counties added to span gaps between:
 - *Washington-Baltimore-Northern Virginia*
 - *Philadelphia-Camden-Vineland*



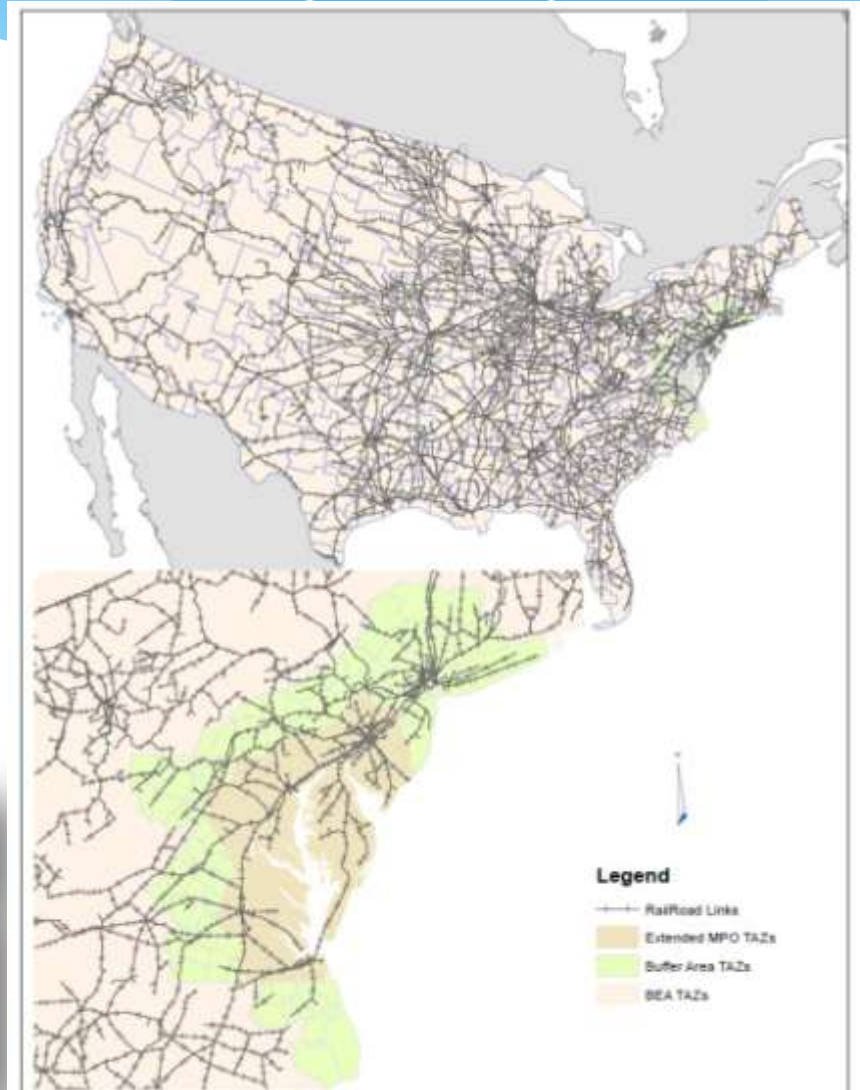
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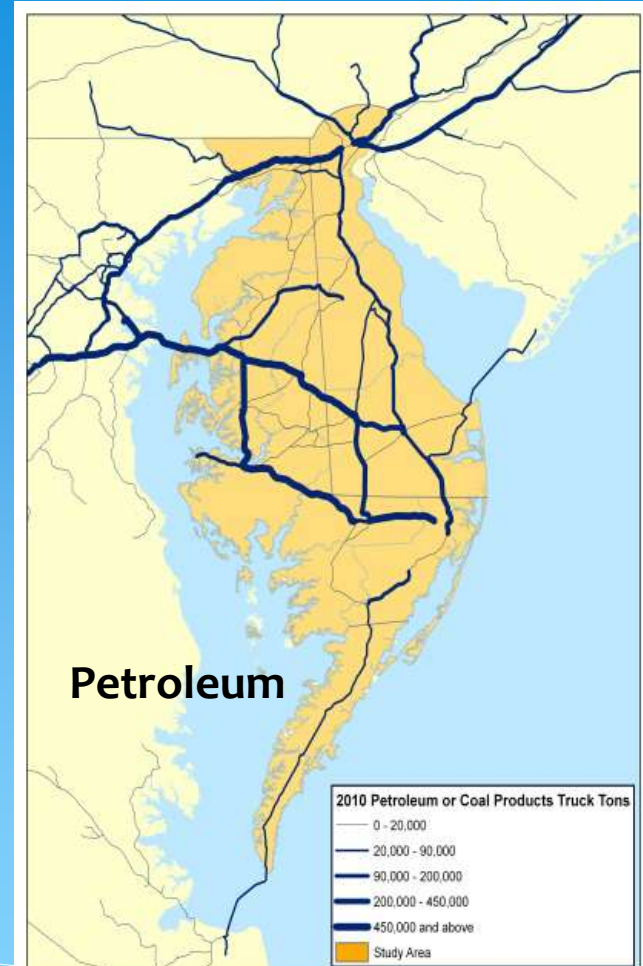
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DELMARVA FREIGHT STUDY

Delmarva's Major Industries Have Different Freight Flow Characteristics:



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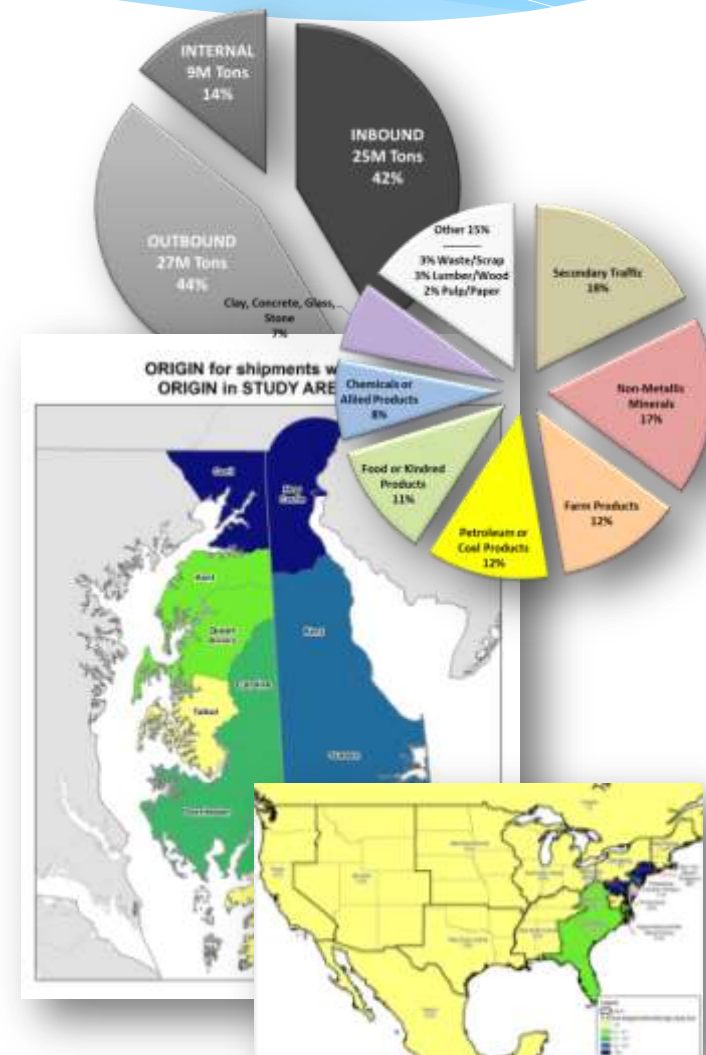


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3.0 Existing Commodity Flows

Pending Draft

- ❖ Will summarize overall commodity data, pending resolution of outstanding issues
 - ✓ Resolved: Transearch tropical fruit coding
 - ✓ Resolved: Transearch routing & FIPS code gaps
 - ✓ Resolved: Transearch vs. FAF differences
 - ✓ Resolved: DE waybill data incorporation
 - ✓ Resolved: Transearch missing regions data
 - ✓ Resolved: Transearch average distances
 - ❑ Pending: MD waybill data
 - ❑ Pending: Missing intra-county flows
 - ❑ Pending: Transearch model updates



4.0 Freight Transportation System

Latest Draft 10/9/2013

- ❖ Inventories modal assets for motor freight, rail, water, air, and pipeline transport
- ❖ Summarizes current travel demand model (TDM) based volume and LOS data
- ❖ Maps key freight transfer sites (rail yards, ports, airports, intermodal sites, etc.)
- ❖ Identifies key freight corridors, local freight zones, and gateways

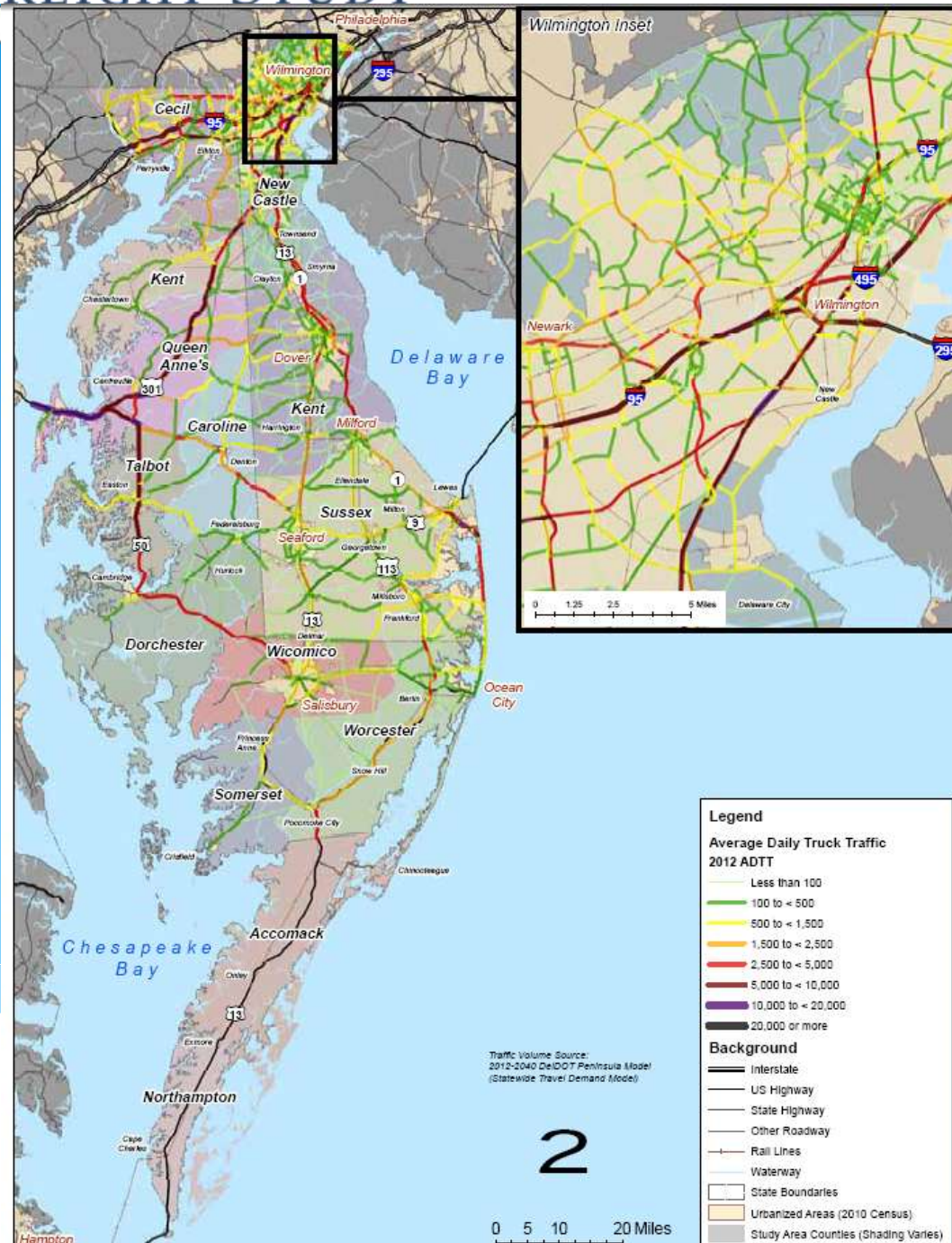


Year	EU membership status					
	1990-1993	1994-1997	1998-2001	2002-2005	2006-2009	2010-2013
Germany 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
France 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Italy 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Spain 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Portugal 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Greece 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Poland 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Czechia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Slovakia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Hungary 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Romania 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Bulgaria 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Croatia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Slovenia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Lithuania 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Latvia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Estonia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Malta 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Cyprus 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Turkey 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Ukraine 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Belarus 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Moldova 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Georgia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Armenia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Azerbaijan 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Yemen 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Sudan 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Egypt 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Libya 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Tunisia 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Algeria 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Morocco 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Mali 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Niger 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Chad 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
Sudan 14	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000



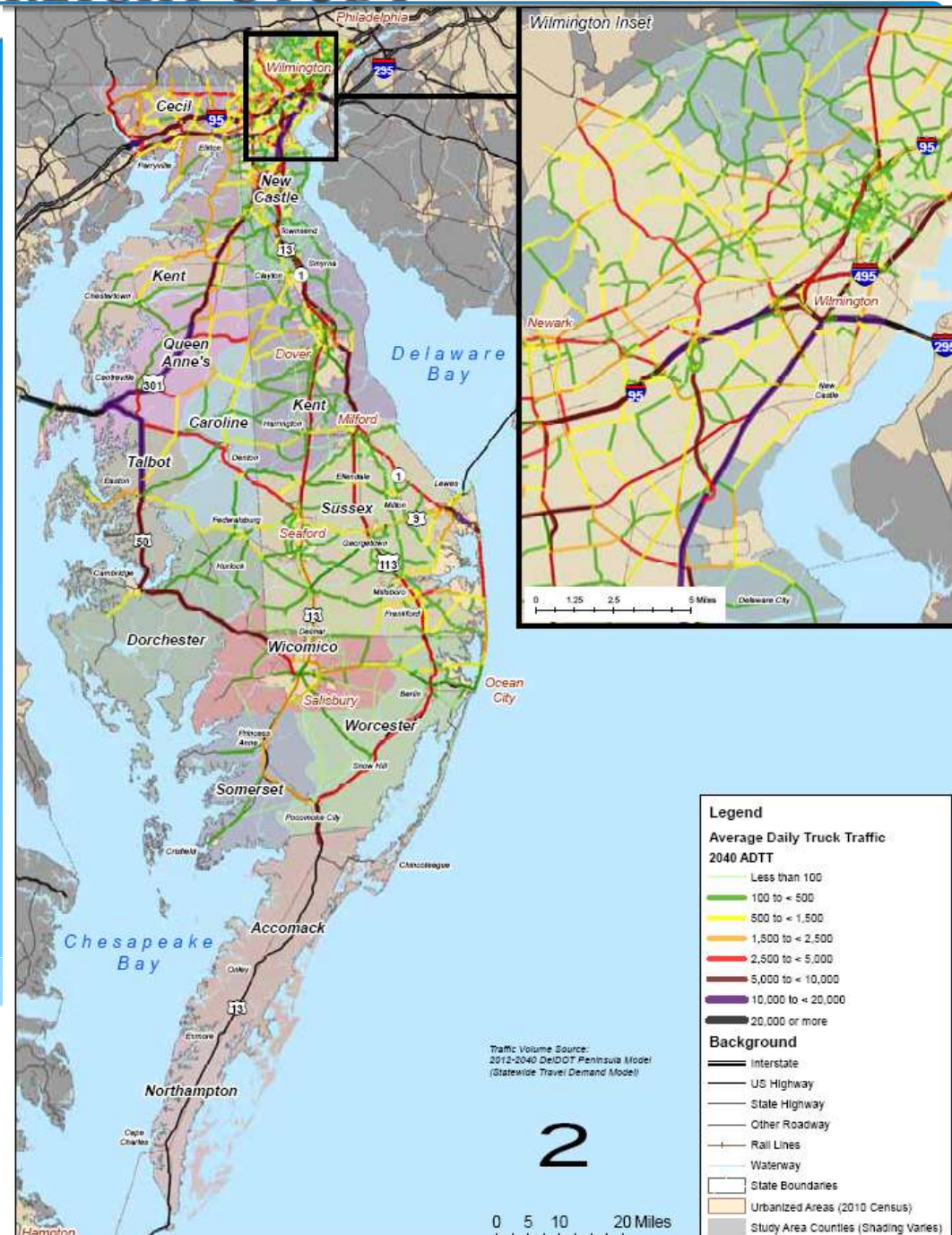
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Truck Volumes 2012



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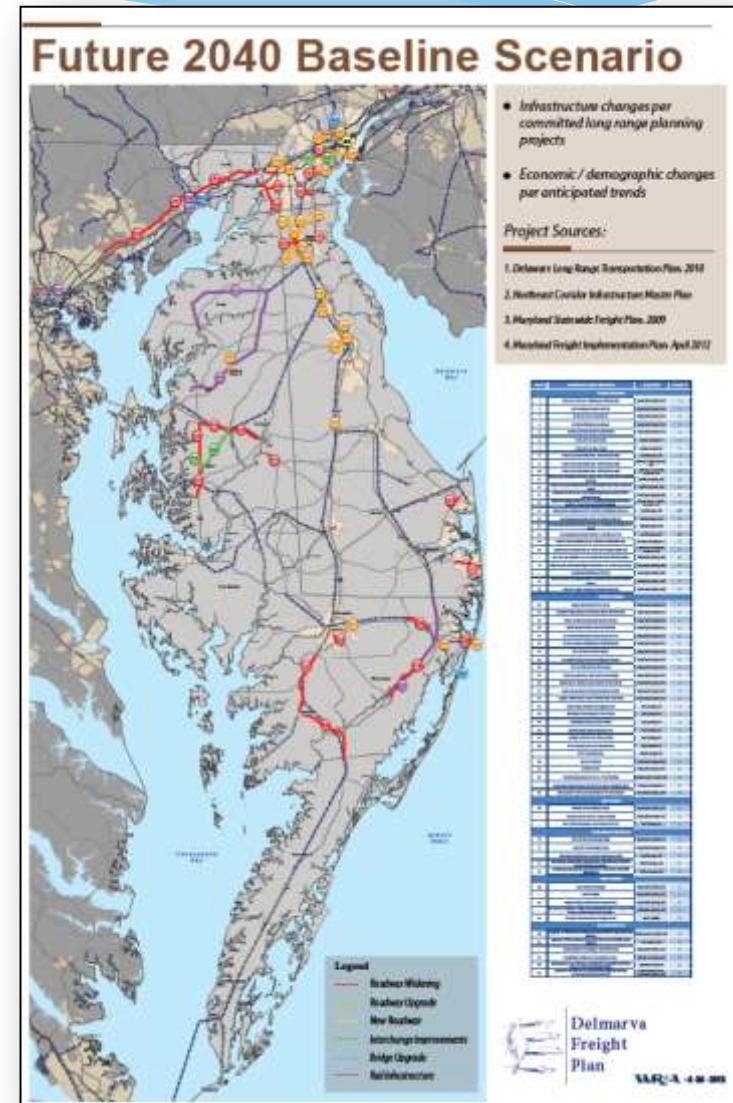
Truck Volumes 2040



Freight Programs & Coordination

Pending Draft

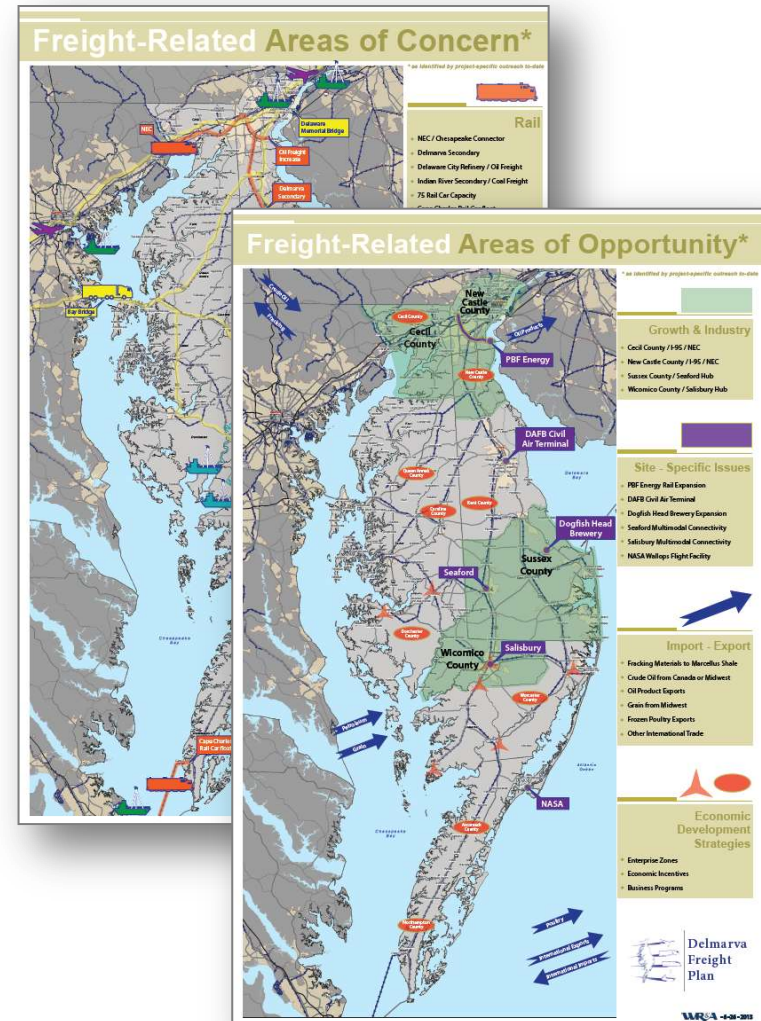
- ❖ Addresses freight programs, policies, and institutions; capital plans and programs; funding; and planned projects and developments
- ❖ Incorporates previously-established future “no-build” project assumptions
- ❖ Baseline includes currently funded TIP/RTP projects



Freight Trends, Needs, Issues

Pending Draft

- ❖ Addresses stakeholder insights; focus areas; future trends & opportunities; future issues & strategies; summary of freight needs.
- ❖ Incorporates previously-established areas of concern/opportunity maps



DELMARVA FREIGHT STUDY

Potential Scenarios: Two Types

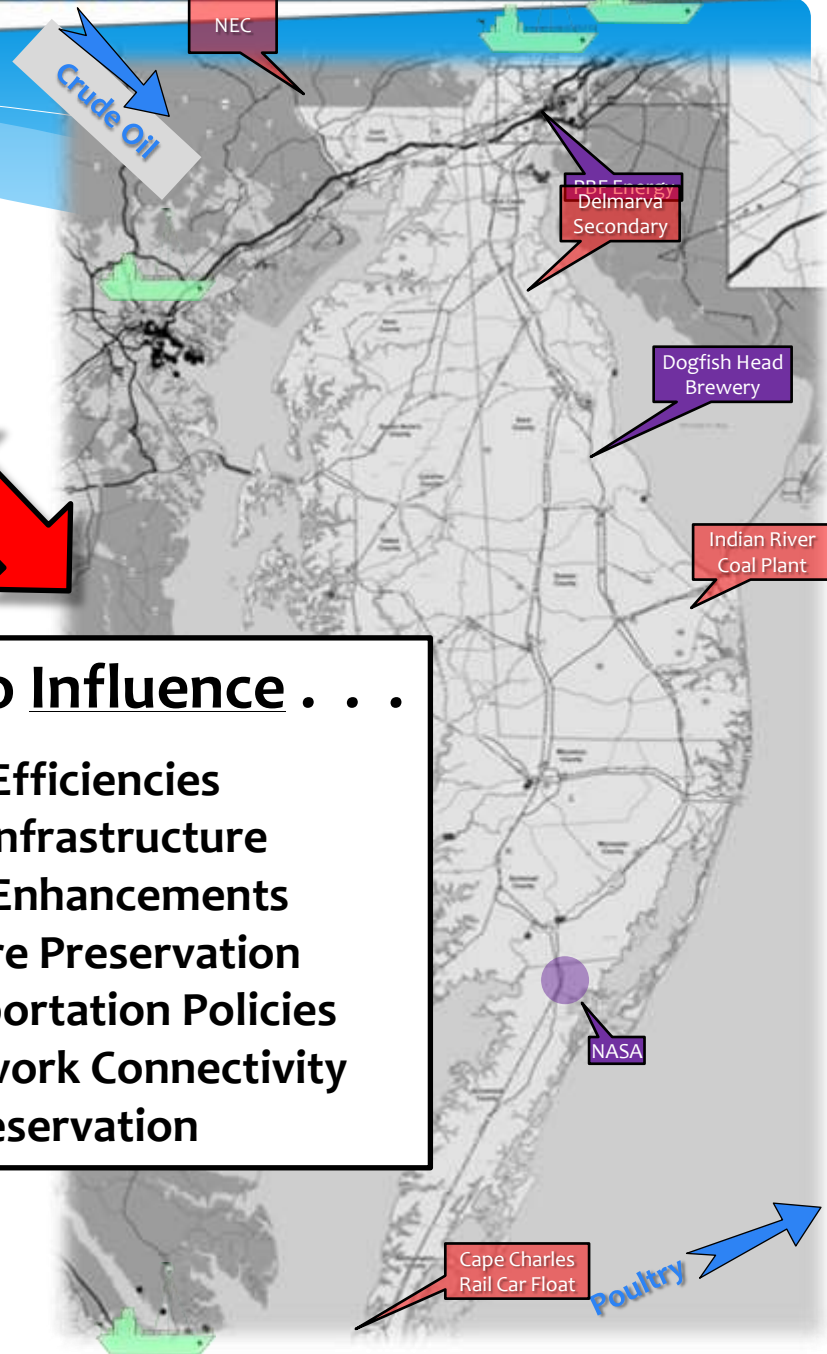
POLICIES & PROJECTS

Factors to React to . . .

- Rail Service Loss
- Port Expansion or Market Shifts
- Post-Panamax Impacts
- Inland Waterway Loss
- Truck Transportation Costs
- Energy Market Trends (Coal, Oil)
- Fulfillment Services Trends

Factors to Influence . . .

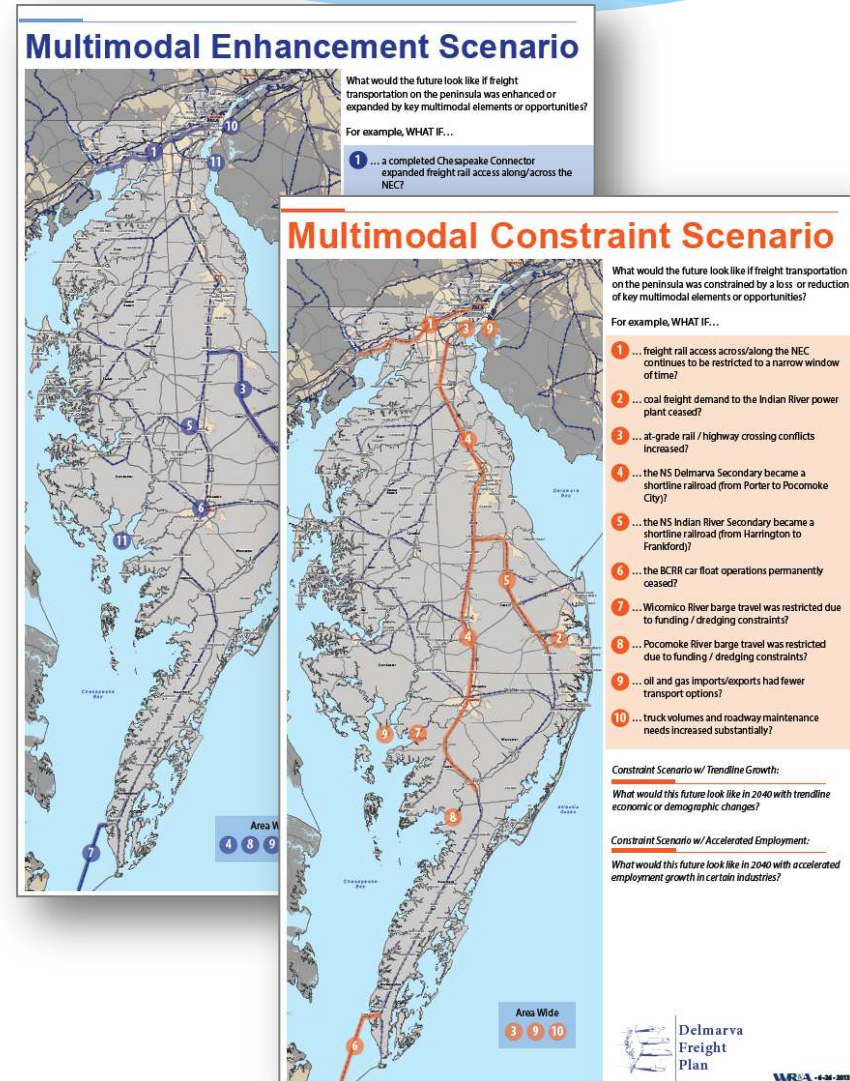
- Rail Service Efficiencies
- Intermodal Infrastructure
- Port Access Enhancements
- Infrastructure Preservation
- Truck Transportation Policies
- Freight Network Connectivity
- Land Use Preservation



Freight Planning Scenarios

Pending Draft

- ❖ Incorporates previously-developed scenarios w/ refinements ongoing
- ❖ Incorporates performance measure concepts w/ refinements ongoing
- ❖ Incorporates Cube Cargo modeling
- ❖ Identifies scenario planning insights
- ❖ Will help to inform remaining Chapters 8-9...the Recommended Action Plan and Freight Plan Summary/Conclusion



Freight Planning Scenarios

Possible future constraints, such as:

- Decreased rail access to Peninsula
- Less capacity due to less dredging
- Car float operations reduced
- Increased reliance on truck mode

Multimodal Constraint Scenario



What would the future look like if freight transportation on the peninsula was constrained by a loss or reduction of key multimodal elements or opportunities?

For example, WHAT IF...

- 1 ... freight rail access across/along the NEC continues to be restricted to a narrow window of time?
- 2 ... coal freight demand to the Indian River power plant ceased?
- 3 ... at-grade rail / highway crossing conflicts increased?
- 4 ... the NS Delmarva Secondary became a shortline railroad (from Porter to Pocomoke City)?
- 5 ... the NS Indian River Secondary became a shortline railroad (from Harrington to Frankford)?
- 6 ... the BCRR car float operations permanently ceased?
- 7 ... Wicomico River barge travel was restricted due to funding / dredging constraints?
- 8 ... Pocomoke River barge travel was restricted due to funding / dredging constraints?
- 9 ... oil and gas imports/exports had fewer transport options?
- 10 ... truck volumes and roadway maintenance needs increased substantially?

Constraint Scenario w/ Trendline Growth:

What would this future look like in 2040 with trendline economic or demographic changes?

Constraint Scenario w/ Accelerated Employment:

What would this future look like in 2040 with accelerated employment growth in certain industries?

Area Wide
3 9 10

Delmarva
Freight
Plan

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Freight Planning Scenarios

Possible multi-modal improvements, such as:

- Expansion/Improve Rail facilities
 - Chesapeake Connector
 - Weight/speed improvements
- Increased carfloat capacity
- Increased intermodal facilities in key locations along Peninsula

Multimodal Enhancement Scenario



What would the future look like if freight transportation on the peninsula was enhanced or expanded by key multimodal elements or opportunities?

For example, WHAT IF...

- 1 ... a completed Chesapeake Connector expanded freight rail access along/across the NEC?
- 2 ... coal freight losses to the Indian River power plant were offset by other/new rail demand?
- 3 ... the NS Indian River Secondary became a shortline railroad (from Harrington to Frankford)?
- 4 ... the peninsula's rail network was enhanced (e.g., removal of speed/weight restrictions or bottlenecks)?
- 5 ... the Seaford Rail Bridge was reconstructed?
- 6 ... a new intermodal facility was strategically located (e.g. near Newark, Seaford, Delmar, or Salisbury)?
- 7 ... BCCR car float operations were stabilized or expanded?
- 8 ... Post-Panamax shipping trends directly impacted the region (e.g., via Baltimore or Norfolk)?
- 9 ... short sea shipping opportunities or the marine highway concept flourished?
- 10 ... the Port of Wilmington developed a new container facility?
- 11 ... oil and gas imports/exports had more transport options?
- 12 ... higher freight volumes increased conflicts with other users (e.g., barges versus recreational water or waterfront property access; or trucks versus seasonal tourism)?

Enhancement Scenario w/ Trendline Growth:

What would this future look like in 2040 with trendline economic or demographic changes?

Enhancement Scenario w/ Accelerated Employment:

What would this future look like in 2040 with accelerated employment growth in certain industries?

Area Wide
4 8 9 11 12



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Performance Measures

Performance Measure	Measurement Details
Regional Intermodal Connectivity	Travel Time to select cities (Philadelphia, Harrisburg, Baltimore, Washington D.C., Hampton Roads)
Local Intermodal Connectivity	Population near select distribution centers (within 15-30-45 minutes of Amazon, WalMart, FedEx, UPS, Sysco) Employment near select freight transfer hubs (within 15-30-45 minutes of Port of Wilmington, NS Newark Yard, NS Jello Yard, NS Harrington Yard, NS Seaford Yard, Perdue Farms)
Roadway Congestion	Truck VMT @ LOS A-C, D, E, F Truck VHT @ LOS A-C, D, E, F
Modal Split	Freight Tonnage by Mode



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Performance Measures

Cube Cargo Evaluation

- ❖ Potential Measures of Effectiveness include:
 - **Travel Time** to Market by Mode
 - Level of Service
 - **Delay**
 - Transportation Cost by commodity and mode
 - **Emissions**
 - **Truck Volumes** on Roadways
 - **Freight Demand by Mode**
- ❖ Add'l research: Cost assumptions for freight movement by mode



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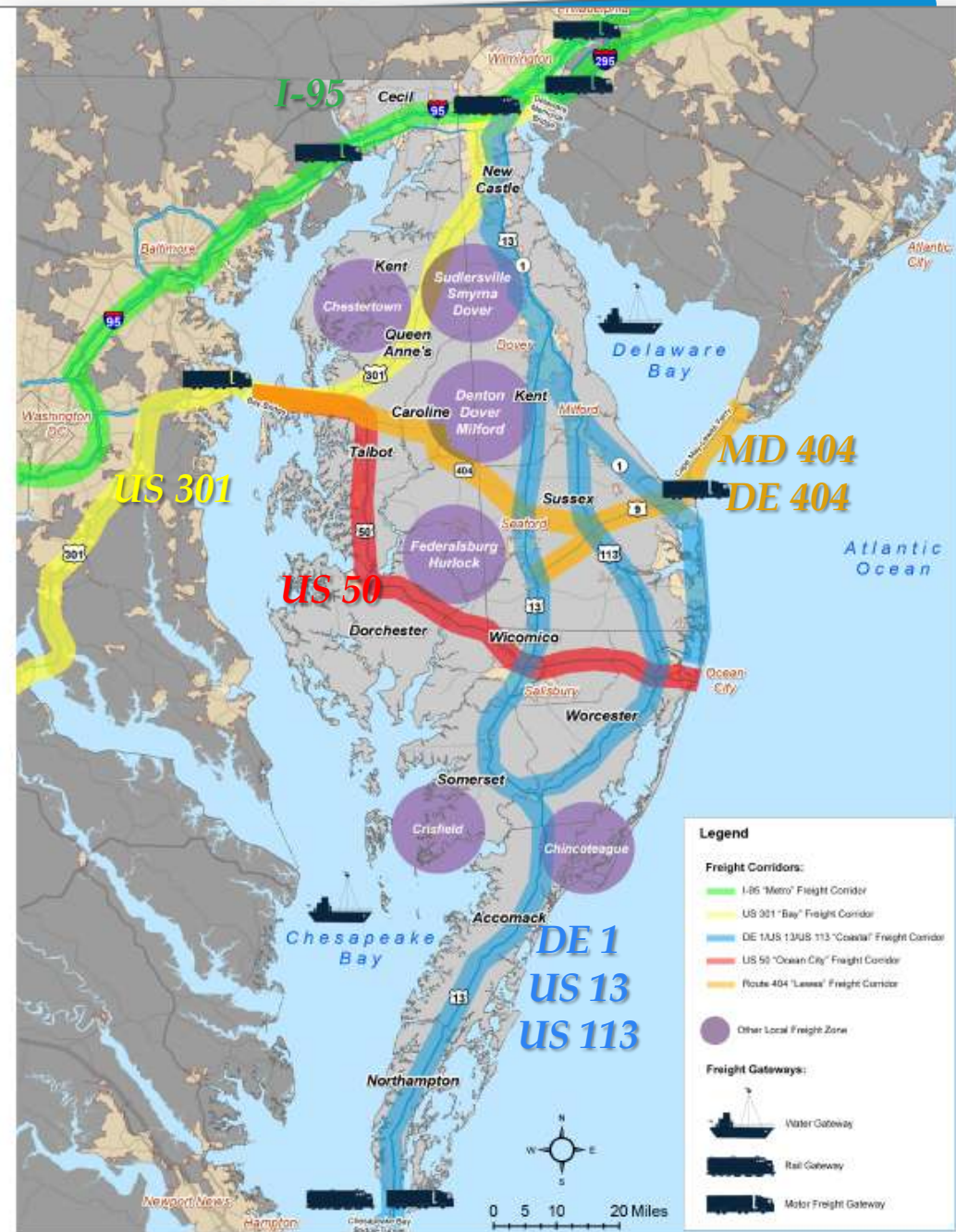
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DELMARVA FREIGHT STUDY

Specific Details to be given
on Identified key freight
connections



US 50 "Ocean City" Freight Corridor

Primary Roadways:	<ul style="list-style-type: none">- US 50- MD 90
Regional Freight Hubs	<ul style="list-style-type: none">- Central/South Central Delmarva Peninsula- Baltimore/Washington metro
Project Area Freight Hubs	<ul style="list-style-type: none">- Chestertown-Easton-Cambridge-Salisbury-Berlin-Ocean City, MD



I-95 "Metro" Freight Corridor

Primary Roadways:

- I-95
- I-295
- I-495
- US 40

Regional Freight Hubs

- Northern Delmarva Peninsula
- Baltimore/Washington metro
- Philadelphia metro
- U.S. Eastern Seaboard (Maine to Florida)

Project Area Freight Hubs

- Elkton, Cecil County, MD;
- Newark-Wilmington-Edgemoor-Claymont-New Castle-Delaware City, DE
- Deepwater, NJ (DuPont)



US 301 "Bay" Freight Corridor

Primary Roadways:	<ul style="list-style-type: none"> - US 301 - US 50
Regional Freight Hubs	<ul style="list-style-type: none"> - Northern/Northwestern Delmarva Peninsula - Baltimore/Washington metro - Richmond metro - U.S. south Atlantic states
Project Area Freight Hubs	<ul style="list-style-type: none"> - Wilmington-New Castle-Newark-Middletown, DE - Massey-Millington-Sudlersville-Centreville-Chestertown, MD



DE 1/US 13/US 113 "Coastal" Freight Corridor

Primary Roadways:

- DE 1
- US 13
- US 113
- MD 528

Regional Freight Hubs

- Eastern/Coastal/Southern Delmarva Peninsula
- Philadelphia metro;
- Hampton Roads metro;
- Extended areas via linkage w/ the I-95 Corridor

Project Area Freight Hubs

- Wilmington-New Castle-Delaware City-Townsend-Smyrna-Clayton-Dover, DE
- **Continued via US 13:** Harrington-Seaford-Delmar, DE; Salisbury-Princess Anne-Pocomoke City, MD; Accomack-Northampton Counties, VA
- **Continued via US 113:** Milford-Ellendale-Georgetown-Millsboro-Dagsboro-Frankford-Selbyville, DE; Berlin-Snow Hill-Pocomoke City, MD
- **Continued via DE 1/MD 528:** Milford-Lewes Beach-Rehoboth Beach-Dewey Beach-Bethany Beach-Fenwick Island, DE; Ocean City, MD



MD/DE 404 "Lewes" Freight Corridor

Primary Roadways:

- MD 404
- DE 404
- US 9

Regional Freight Hubs

- Central Delmarva Peninsula
- Baltimore/Washington metro (via connection to US 50/301)
- Atlantic City/Jersey Shore area (via connection to ferry service)

Project Area Freight Hubs

- Wye Mills-Queen Anne-Denton, MD
- Bridgeville-Laurel-Georgetown-Lewes, DE



US 202/DE 41 "Piedmont" Freight Corridor

Primary Roadways:	<ul style="list-style-type: none"> - US 202 - DE/PA 41 - DE/PA 52 - Pennsylvania linkages to I-76, US 30, and US 322
Regional Freight Hubs	<ul style="list-style-type: none"> - Northern Delmarva Peninsula - Lancaster/York/Harrisburg area (via I-76, US 30, US 322) - Pittsburgh metro (via I-76, US 30) - U.S. Midwest markets (via linkage to I-70, I-80)
Project Area Freight Hubs	<ul style="list-style-type: none"> - Hockessin-Elsmere-Newport-Stanton-Talleyville, DE - Newark-Wilmington, DE and extended areas via connection to other freight corridors



Next Steps

- ❖ *Finalize commodity flow data*
- ❖ *Complete and calibrate Cube Cargo*
- ❖ *Run and fine-tune scenarios*
- ❖ *Summarize scenario results and insights*
- ❖ *Develop recommended action plan*
- ❖ *Finalize overall freight plan*

Remaining Schedule

- **DECEMBER-JANUARY:** Ongoing model prep; submittal of Final Chapter 5 (programs, institutions and funding) and 6 (trends, needs and issues)
- **JANUARY-FEBRUARY:** Ongoing model prep and prelim calibration; submittal of Draft Chapter 7 (performance measures, scenario prep).
- **PAC MEETING #8** in late January/early February to discuss model status, draft to-date, and final scenario prep
- **FEBRUARY-MARCH:** Scenario modeling and results; development of preliminary recommendations
- **PAC MEETING #9** in late March to review scenario results and recommendations
- **APRIL-???:** We will finalize the overall plan upon receipt of comments on preferred scenarios/recommendations following PAC Meeting #9.