Delmarva Freight Plan

The Delaware Freight Plan with Regional Coordination

2015 Mid-Atlantic Regional Planning Roundtable Conference

Wilmington, DE

October 29, 2015

Delaware Department of Transportation

Maryland Department of Transportation

VDOT

WILMAPCO

VANTAGEPOINT DEVELOPMENT ADVISORS

Dover/Kent County MPO

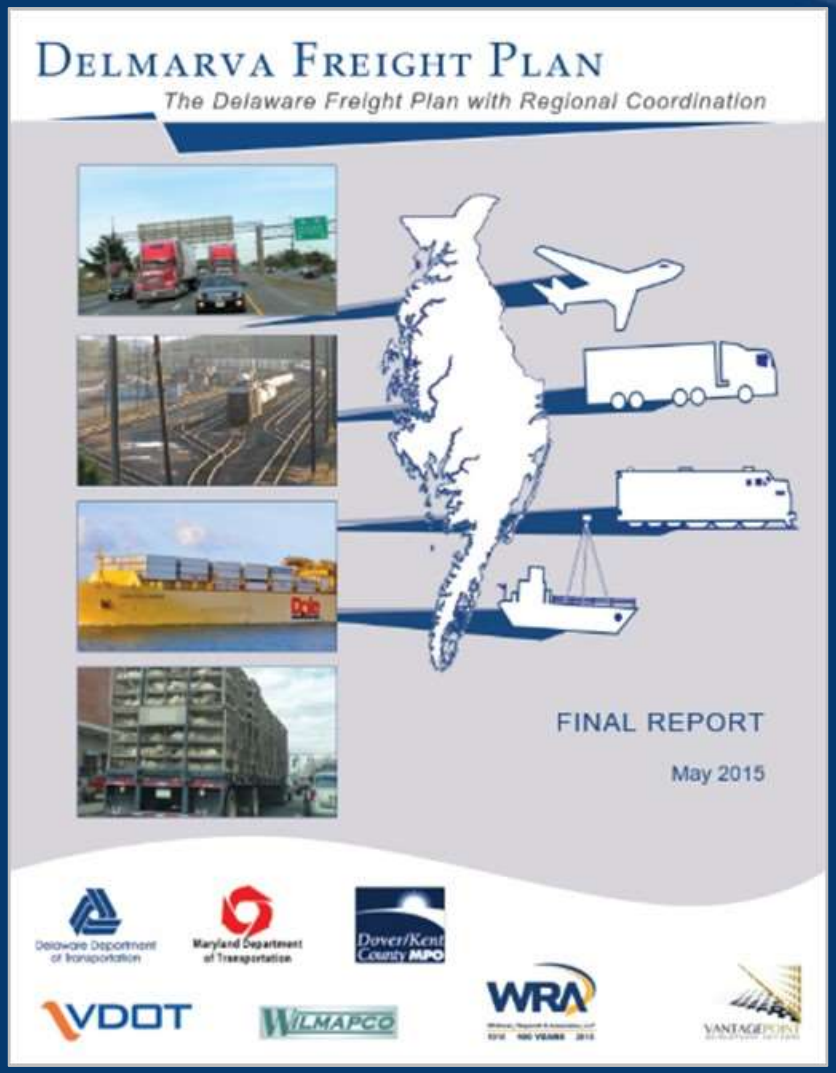
SALISBURY/WICOMICO Metropolitan Planning Organization

WRA

Whitman, Requardt & Associates, LLP

1915 100 YEARS 2015

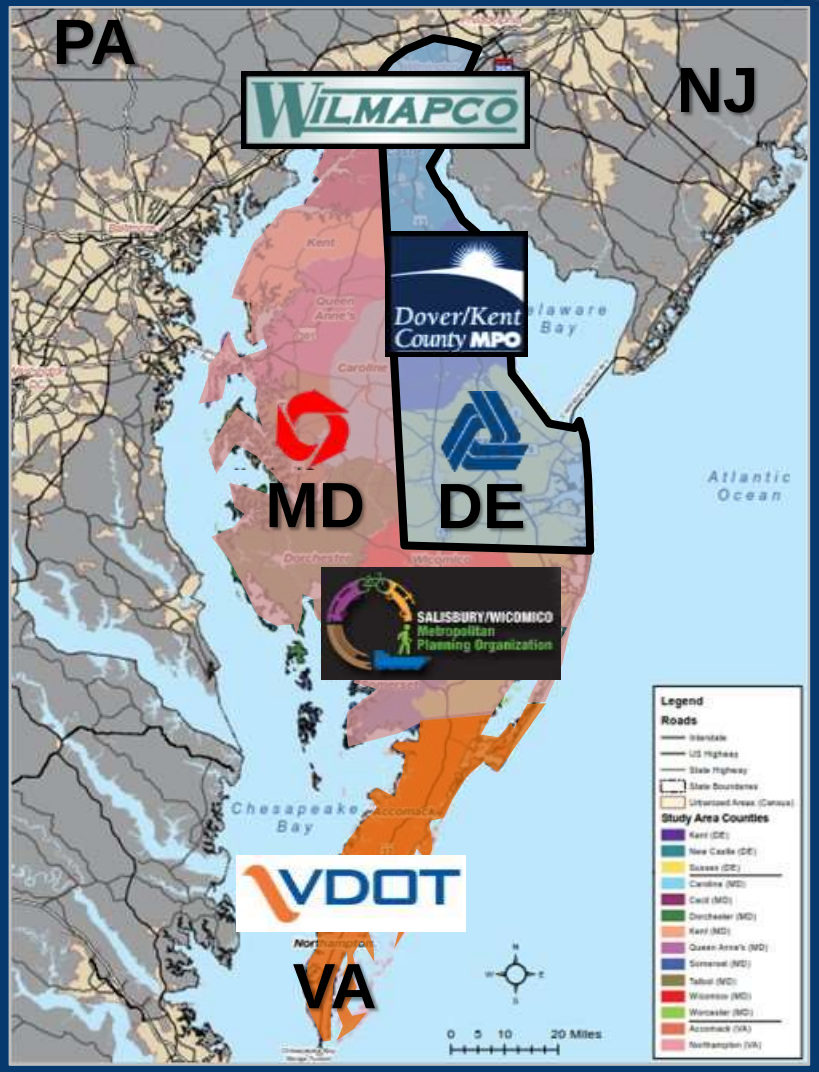
Delmarva Freight Plan



Overall scope

- Delaware's State Freight Plan (2015)
- Multimodal evaluation of Delmarva's freight system across jurisdictional boundaries

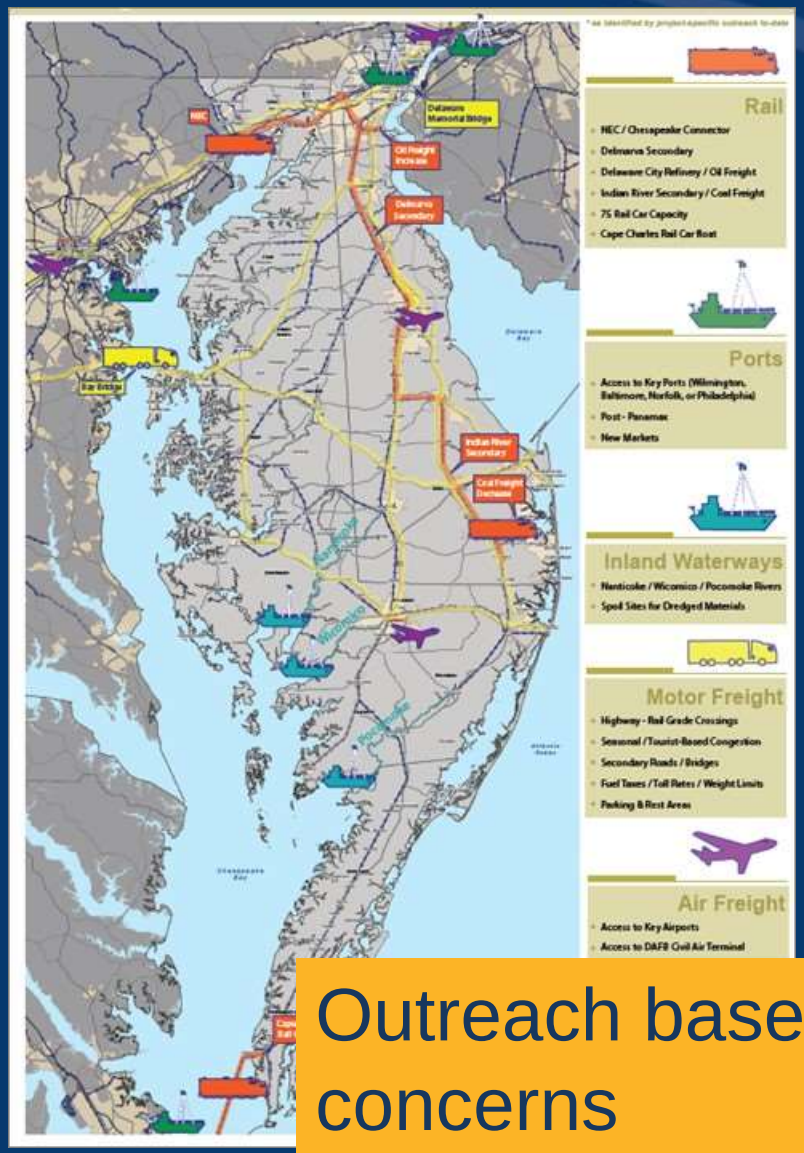
Delmarva Freight Plan



Key aspects

- Broad project area
- MAP-21 compliancy
- Commodity flow modeling
- Performance based scenario planning
- Project assessments

Background Planning



Outreach based concerns

Outreach based opportunities

Background Planning

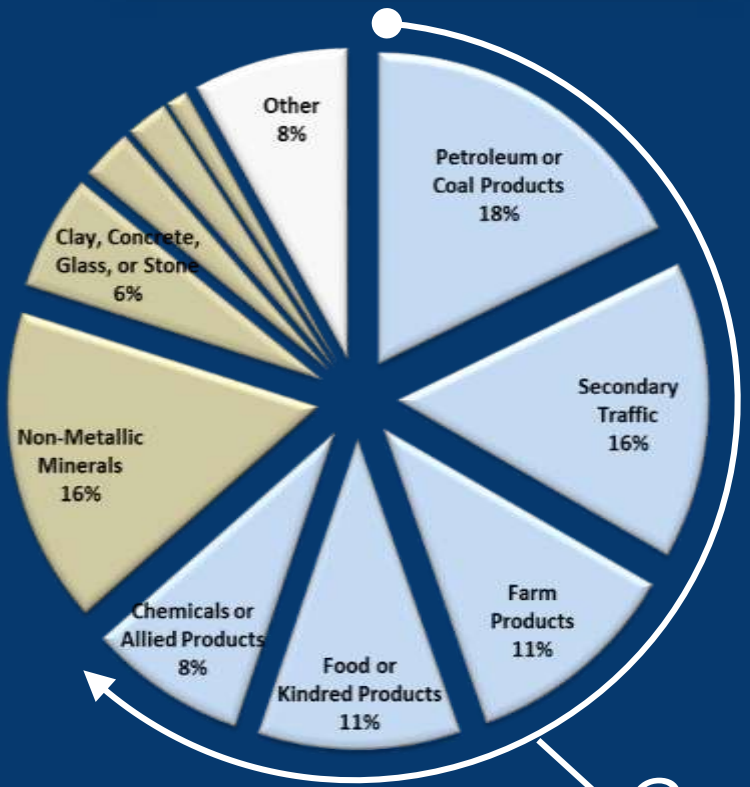
U.S. Department of Transportation
Federal Highway Administration

Surface Transportation Board

Commodity flow data

> 60% total freight in:

- Petroleum/coal products
- Secondary traffic
- Farm products
- Food products
- Chemical products

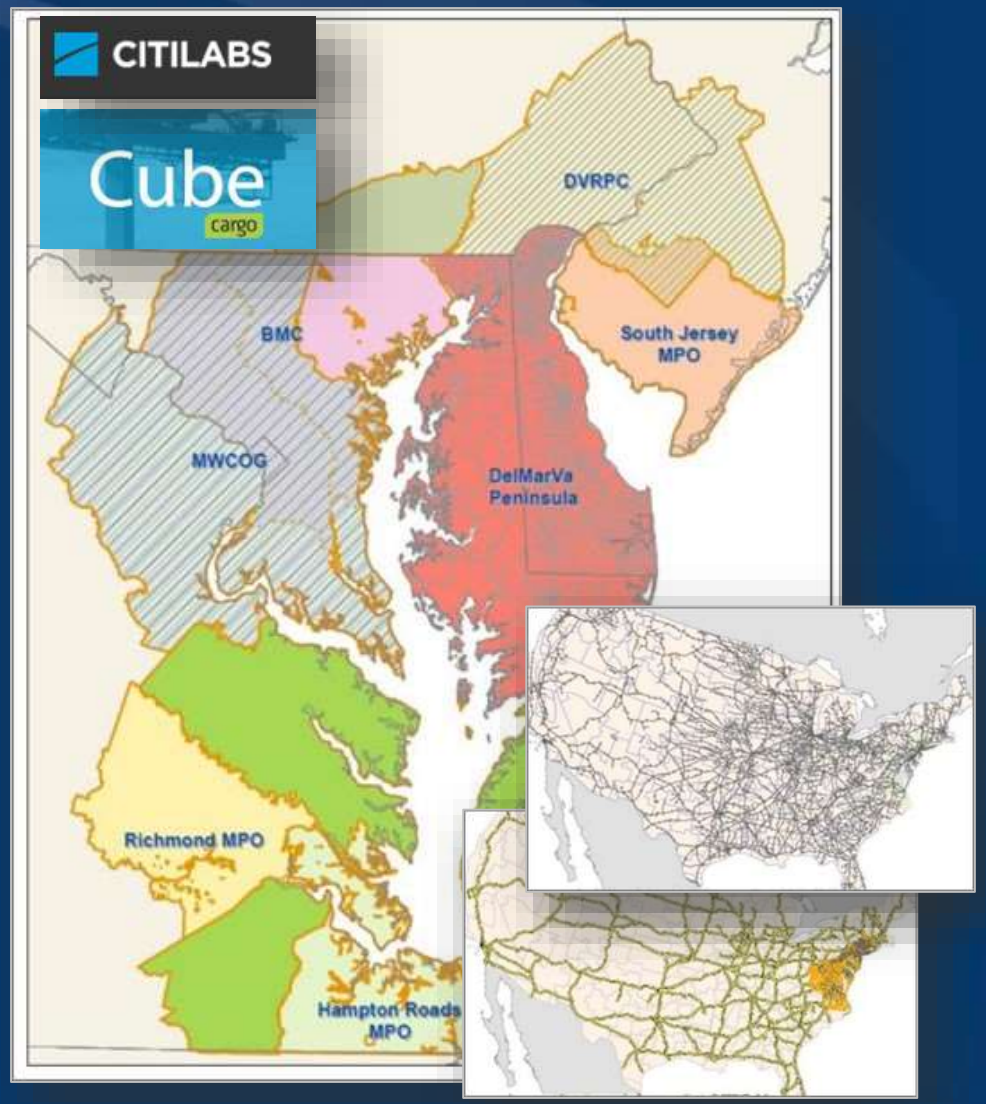


Core Groups

Background Planning

Commodity flow model

- Performance measurement
- System-wide or corridor-level assessments
- Industry or commodity-specific flow characteristics
- Scenario planning



Background Planning

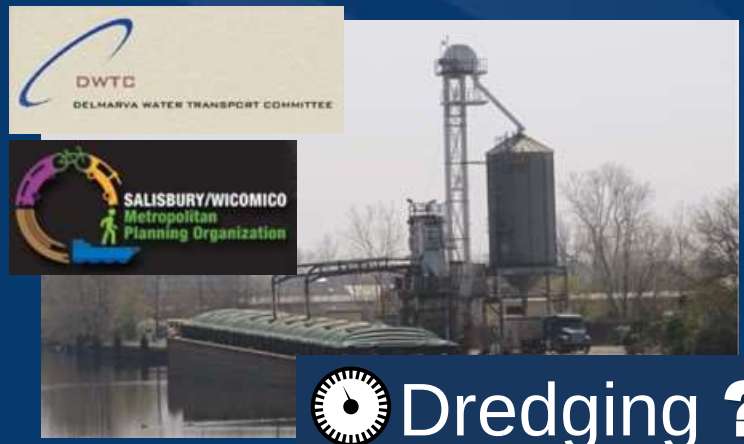
Key freight corridors

- I-95
- US 301
- US 50
- US 13/113 & DE 1
- US 202 & DE 41
- MD/DE 404 & US 9
- Local freight zones

Scenario Planning

External Forces

Oil freight ⬆



Dredging ?

Coal freight ⬇

Post-panamax ?

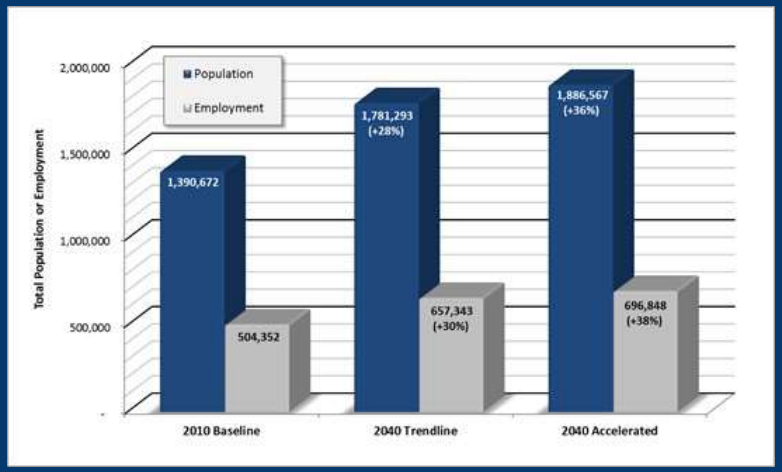
Scenario Planning

Trendline Economic Growth

- Population
- Employment

Accelerated Economic Growth

- Targeted industries
- Market shifts



DUPONT

PERDUE

PREMIUM Mountaire Fresh Young Chicken

WRA

Scenario Planning

Multimodal Infrastructure Constraint

- Rail constraints
- Barge constraints
- Truck reliance

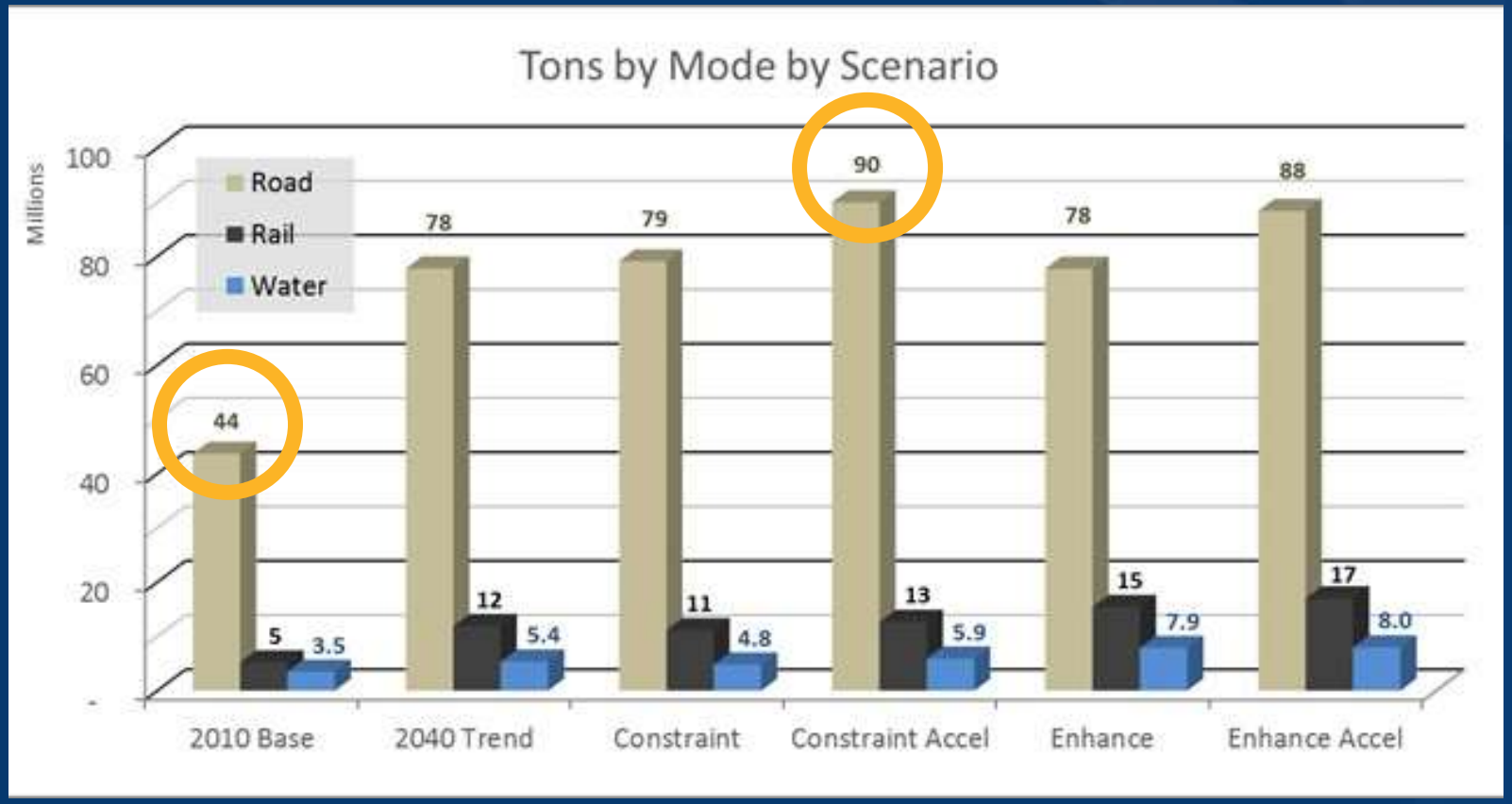
Multimodal Infrastructure Enhancement

- Rail improvements
- Bridge upgrades
- Intermodal access

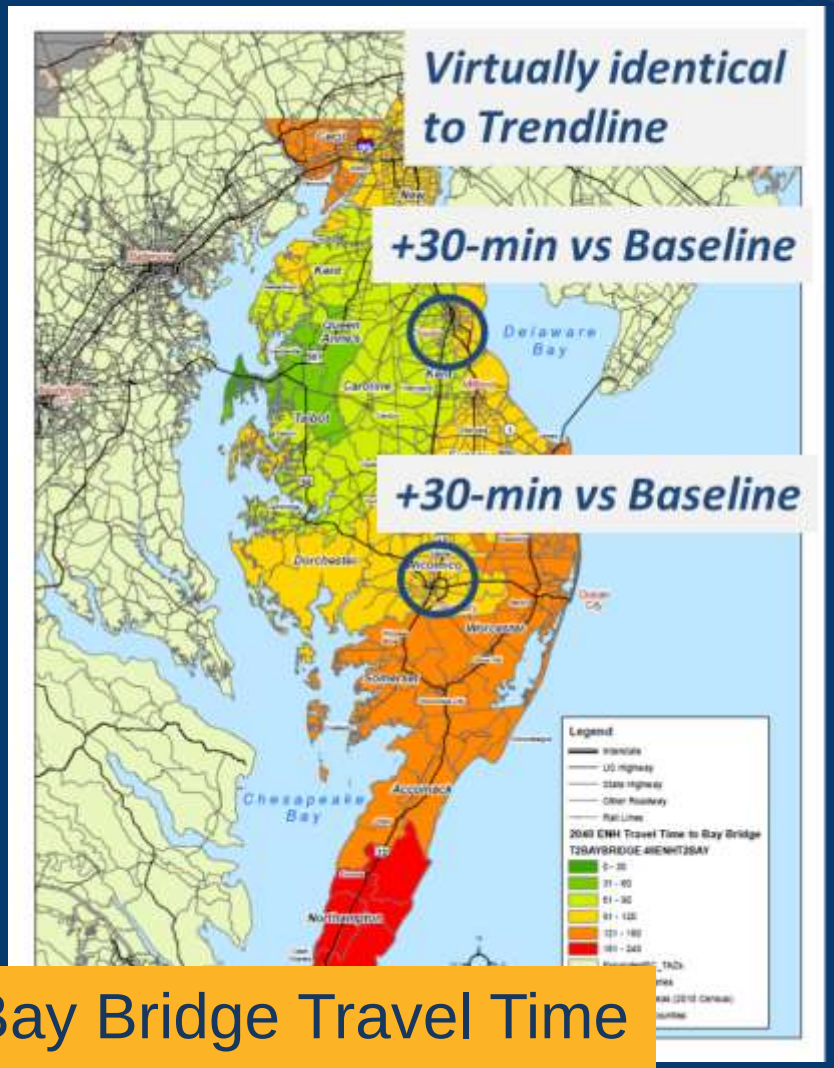
Scenario Insights

System Impacts by Mode

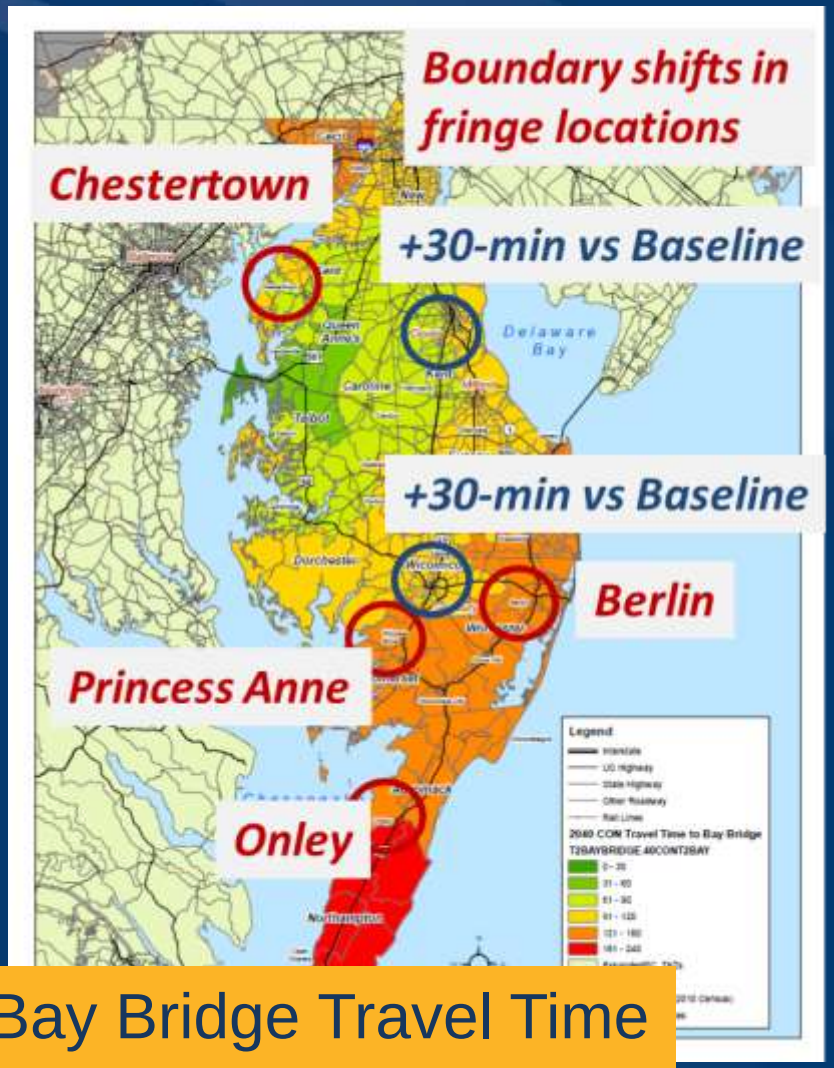
e.g. the impact of accelerated growth on truck levels



Scenario Insights



Bay Bridge Travel Time (w/ Enhancements)

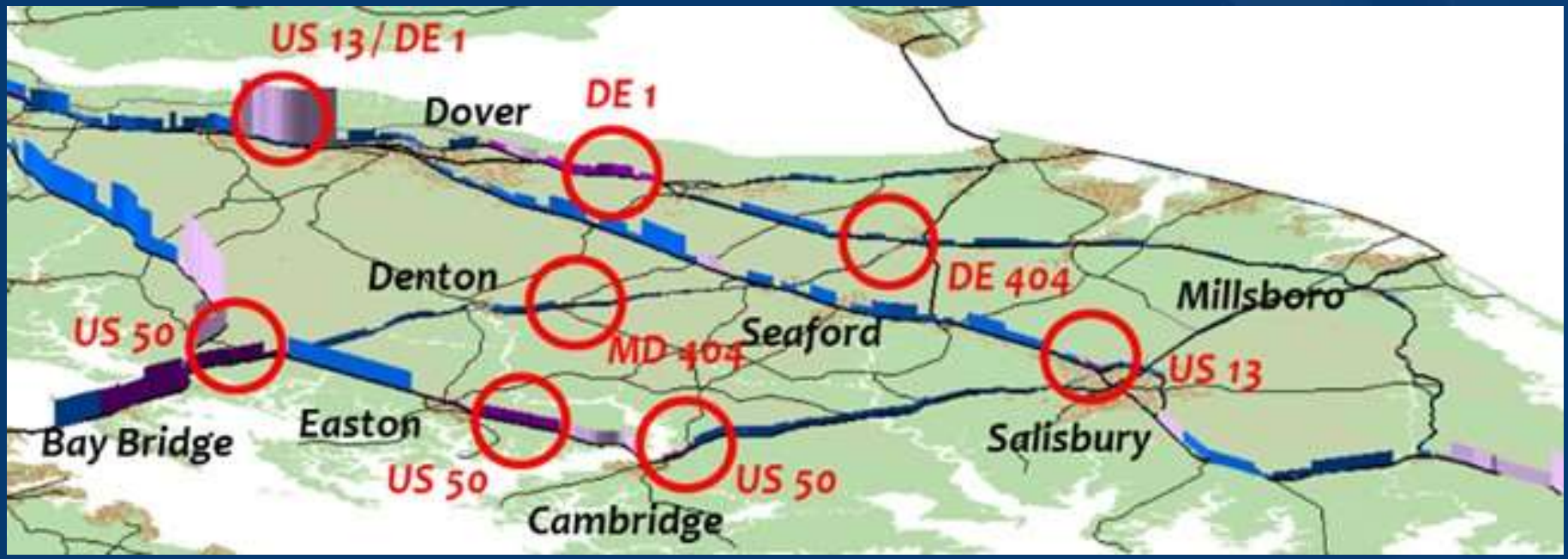


Bay Bridge Travel Time (w/ Constraints)

Scenario Insights

Corridor Impacts (Truck VHT by LOS)

e.g. the impact of barge constraints vs. US 50 truck traffic



Project Assessments

Assessment criteria by focus area

- Economic Vitality
- Freight Connectivity, Mobility and Accessibility
- Safety and Security
- System Mgmt, Operations and Maintenance
- Sustainability and Environmental Stewardship

Project Assessments

Project Screening (*regional area*)

Potential Freight Influence:

Nominal	Low	Moderate	High

Candidate Project Details								Focus Area Influence						Scenario Influence				
Index #	Route / Area	Limits	Description	State	County	Commit Tier	Network Tier	Overall	Economic Vitality	Connectivity Mobility	Safety Security	Management O&M	Sustainability Env Steward	Trendline	Constraint	Constraint Accel	Enhance	Enhance Accel
Other Details																		
MT 40	Area Study	Elkton	Freight Management Study, including route signage and truck restrictions	MD	CEC	3	4	◑	◑	○	◑	◑	○	●		⚑		⚑
DELAWARE																		
Tier 1F Routes (State Primary on Federal PFN)																		
MT 50	I-95	at DE 896	Major interchange reconstruction	DE	NCC	2	1F	◑	◑	●	●	○		●				
MT 53	I-95	at DE 141	Phase I / Phase II interchange projects	DE	NCC	2	1F	◑	◑	●	◑	○		●				⚑
MT 54	I-95	at US 202	Interchange improvements	DE	NCC	1	1F	○	◑	◑	◑	○		●		⚑		⚑
MT 55	I-95	US 202 to I-495 / DE 92	Widen from 4 to 6 lanes	DE	NCC	2	1F	●	●	●	●	◑	○	○		⚑		⚑
MT 56	I-295	I-95 to Delaware Memorial Br	Improvements	DE	NCC	1	1F	●	●	●	●	◑	○	●		⚑		⚑
Tier 1S Routes (State Primary)																		
MT 60	US 13	I-495 to Christiana River	Corridor Study / Concept Design for freight management upgrades	DE	NCC	3	1S	◑	◑	◑	○	○	◑	●				
MT 61	US 13	DE1 to I-495	Corridor Study / Concept Design for roadway or capacity upgrades	DE	NCC	3	1S	●	●	●	●	◑	○	●		⚑		⚑
MT 62	US 13	at DE 273	Interchange Feasibility Study / Concept Design	DE	NCC	4	1S	◑	●	●	◑			◑		⚑		⚑

Project Assessments

Weight	Weight / Category / Criteria	Criteria Rating Scale 0.00	0.25	0.50	1.00
15%	**Economic Vitality**				
20%	**Focus Area Influence** (category-specific per project screening results)	*Nominal*	*Low*	*Moderate*	*High*
20%	**Scenario Influence*** (per project screening results)	*1*	*2-3*	*4-5*	*6-7*
60%	**Freight Generators** (within 1-mile buffer of project location)	*0*	*1-5*	*6-10*	*>10*
25%	**Freight Connectivity, Mobility and Accessibility**				
20%	**Focus Area Influence** (category-specific per project screening results)	*Nominal*	*Low*	*Moderate*	*High*
50%	**LOS / Base** (at project location)	*A-C*	*D*	*E*	*F*
30%	**LOS / No-Build** (at project location)	*A-C*	*D*	*E*	*F*
30%	**Safety and Security**				
20%	**Focus Area Influence** (category-specific per project screening results)	*Nominal*	*Low*	*Moderate*	*High*
80%	**Fatal Crashes involving Large Trucks** (number within 3-year period per NHTSA FARS data)	*0*	*1*	*2*	*≥3*
20%	**System Management, Operations and Maintenance**				
20%	**Focus Area Influence** (category-specific per project screening results)	*Nominal*	*Low*	*Moderate*	*High*
80%	**Average Daily Truck Traffic** (at project location for Base year conditions)	*0-100; or 100-1000***	*1,000-2,500*	*2,500-7,500*	*>7,500*
10%	**Sustainability and Environmental Stewardship**				
20%	**Focus Area Influence** (category-specific per project screening results)	*Nominal*	*Low*	*Moderate*	*High*
80%	**Congested Travel Speed** (as a % of free-flow speed for modeled peak period)	*>90%*	*60-90%*	*30-60%*	*<30%*

Project Prioritization (*Delaware only*)

Potential Freight Influence:

<15 ***15-30*** ***30-50*** ***50-100***

Scoring / Ranking Scale

Action Plan

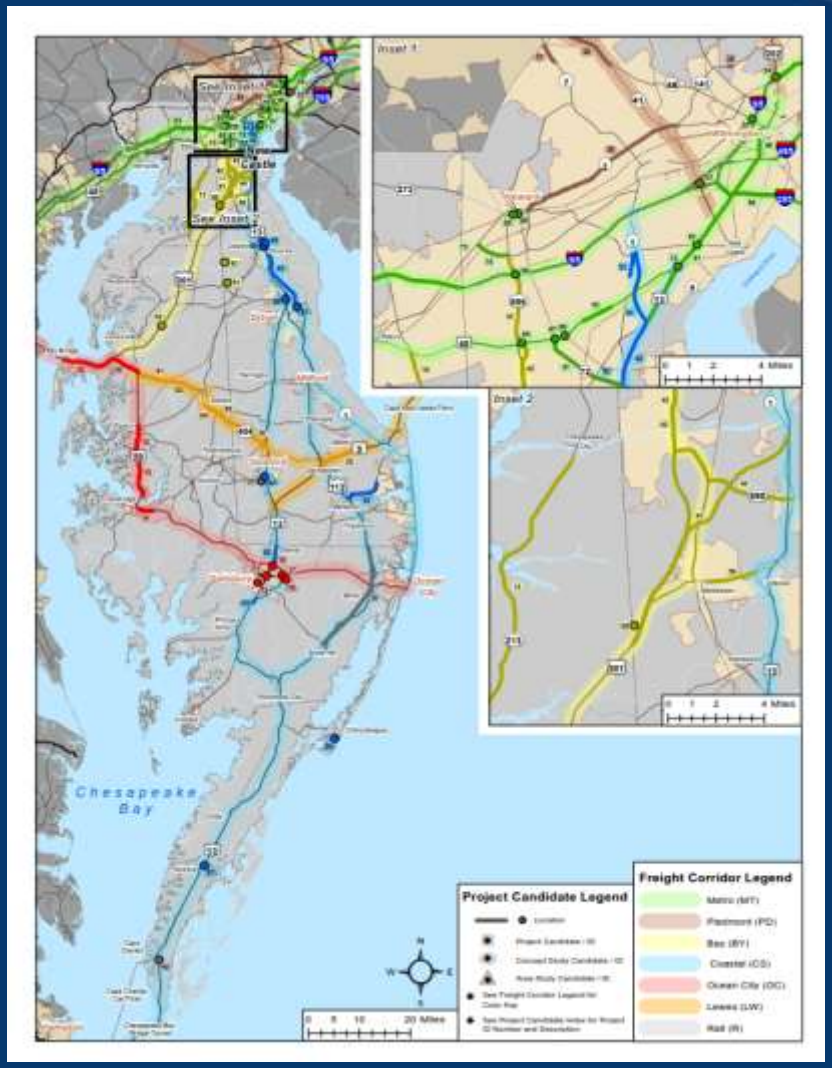
Project Summaries by Corridor

Scenario-Specific Influence:	
	More potential need
	Less potential need

Relative Freight Influence

- = High
- = Moderate
- = Low
- = Nominal

Action Plan



Key Project Guidance

- Anticipated commitments
- Unfunded aspirations
- VWS focus
- Studies
- Multimodal

Action Plan

Key Policy Guidance

- Guiding Principles
- Performance Monitoring
- Strategic Implementation Actions
- Future Plan Enhancements

Summary

Strengths of the plan…

- MAP 21 freight planning emphasis

- Project screening & prioritization
- Scenario testing for variable futures
- Support to pursue freight-specific funding

- Regional perspectives w/ local relevance
- Future freight planning capabilities

Follow-up Contacts

Chad D. Reese
724-779-7940
creese@wrallp.com

Mike DuRoss
302-760-2110
michael.duross@state.de.us

Scott Thompson-Graves
724-779-7940
sthompson-graves@wrallp.com

Dan Blevins
302-737-6205
dblevins@wilmapco.org