

Traffic Impact of a Hypothetical Inland Port in Hampton Roads

April Update

Presented by:

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OUTLINE

- Report outline was distributed at the March FTAC meeting.

Study Outline - Traffic Impact of Hypothetical Inland Port in Hampton Roads Report 3/3/2011

- **Introduction**
 - Define issues with congestion in the region
 - Define importance of the Port to the region
 - Study goals
 - Emphasize that this report is primarily looking at the effects this facility would have on regional congestion and VMT, not whether it is economically feasible.
- **Existing Conditions**
 - Port of Virginia
 - Description of four Port of Virginia facilities
 - Local Transportation Network Serving the Port
 - Rail network
 - Roadway network
 - Barge service
 - Port Trends
 - Port freight levels
 - Port freight modes
 - Existing Truck Volumes and Characteristics
 - Regional truck VMT
 - Truck volumes at regional gateways
 - Truck volumes by location
 - Truck volumes/VMT directly attributable to the Port
 - Existing Traffic Conditions
 - Congested Locations
 - Locations where congestion and high truck volumes overlap
- **Traffic Conditions with Hypothetical Inland Port**
 - Assumptions Regarding Hypothetical Facility
 - Concept
 - Description of existing/proposed Inland Ports throughout the U.S.
 - Description of local concept
 - Location
 - Total freight levels
 - Freight diverted due to hypothetical facility
 - Diverted freight levels
 - Routes currently used by diverted freight
 - Analysis
 - Changes expected due to the hypothetical facility
 - Total and truck VMT
 - Volumes on major routes
 - Congestion levels on major routes
- **Other Impacts**
- **Conclusions**

TRUCK VEHICLE-MILES OF TRAVEL

- Truck travel in Hampton Roads comprises 3% of all regional travel.
- About 10% of all truck travel and 0.3% of all travel in the region is port-related truck travel.

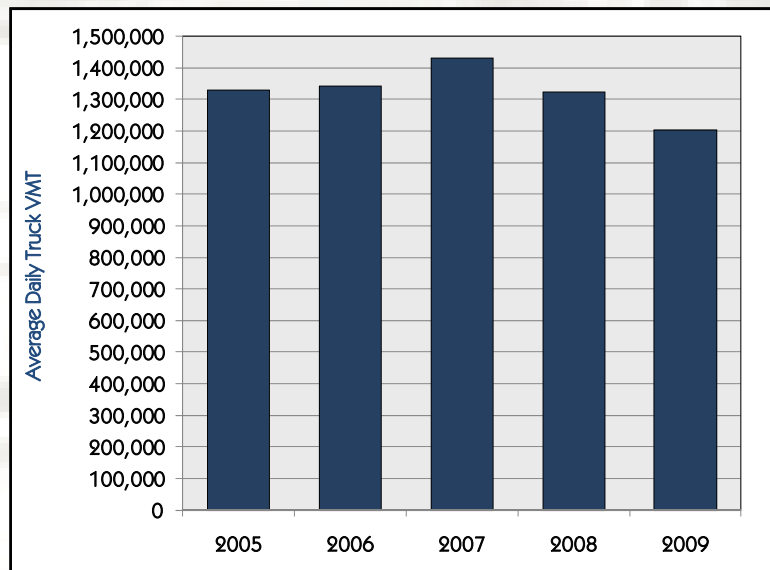


Figure X – Truck VMT Each Weekday in Hampton Roads

Data Source: VDOT.

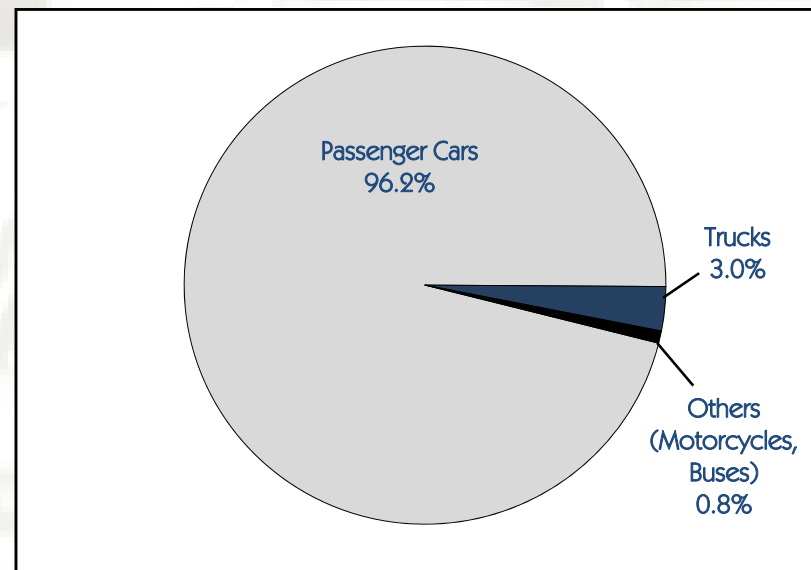


Figure X – VMT in Hampton Roads by Vehicle Type, 2009

Data Source: VDOT.

TRUCK TRAVEL DISTRIBUTION

- The number of trucks on regional roadways is at the highest levels during non-peak travel periods.

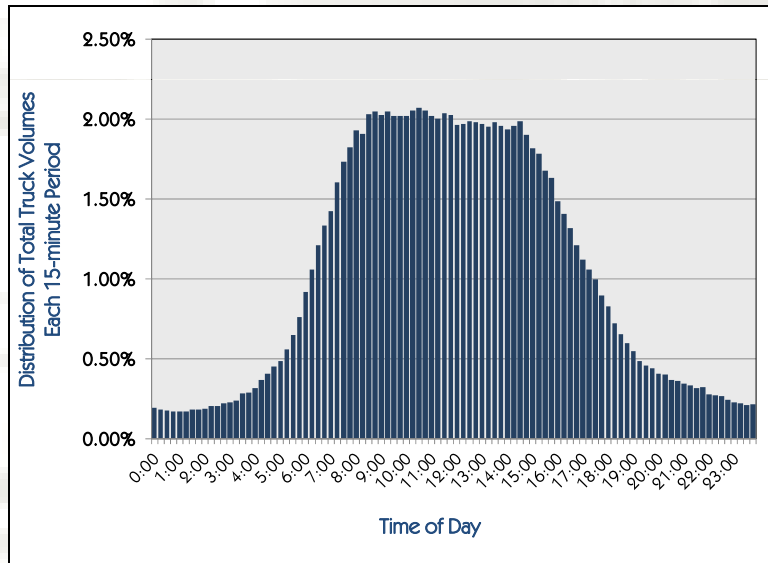


Figure X – Distribution of Total Weekday Truck Volumes in Hampton Roads by Time of Day, 2010

Data Source: VDOT.

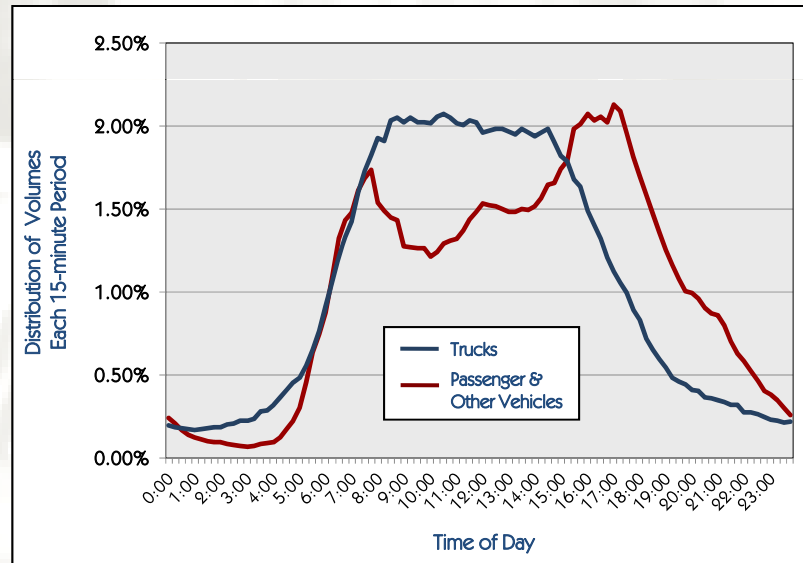


Figure X – Distribution of Total Weekday Truck and Other Vehicle Volumes in Hampton Roads by Time of Day, 2010

Data Source: VDOT.

HAMPTON ROADS GATEWAYS

- The drop in the number of trucks coming into and going out of Hampton Roads ended in 2010.

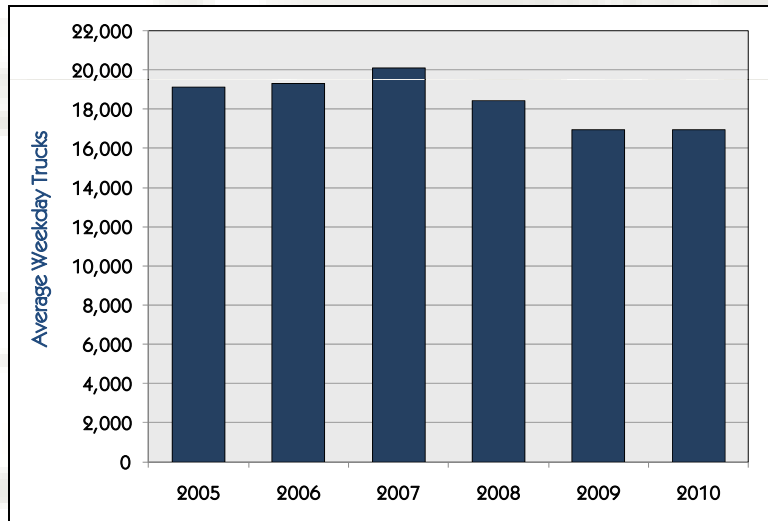


Figure X – Total Number of Trucks Passing Through the Top 10 Hampton Roads Gateways Each Weekday
Data Sources: VDOT, Chesapeake Bay Bridge-Tunnel.

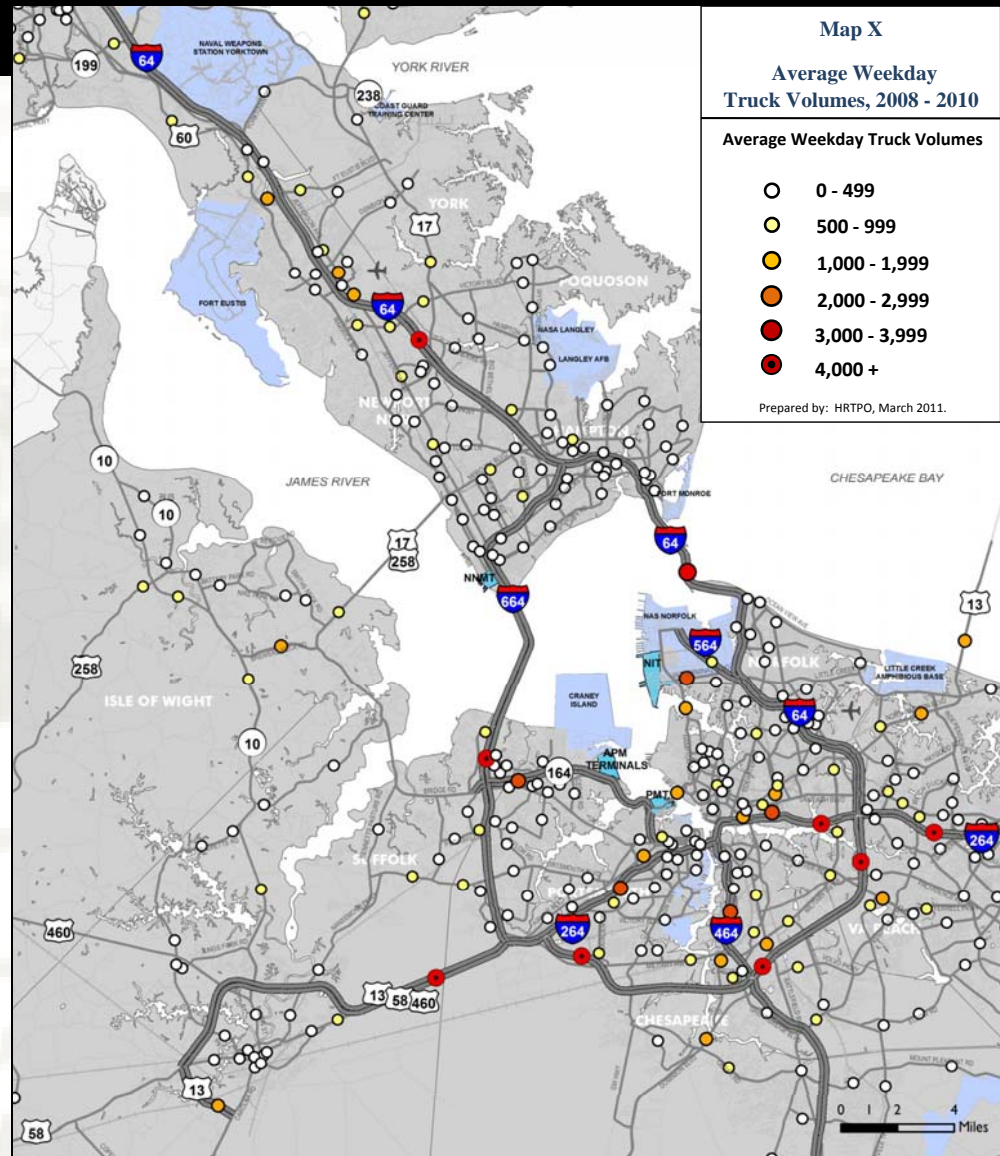
GATEWAY	2005	2006	2007	2008	2009	2010
I-64	7,039	7,202	7,413	6,918	6,463	6,402
Route 58	3,800	3,934	4,201	3,929	3,447	3,412
Route 460	2,300	1,801	2,188	2,144	1,890	1,936
Chesapeake Bay B-T	1,356	1,321	1,263	1,199	1,159	1,149
Route 17 (N Carolina)	913	1,128	1,059	928	929	917
Route 168	1,046	1,198	1,184	901	837	747
Route 17 (Gloucester)	917	956	996	823	771	869
Route 13 (N Carolina)	801	791	822	695	637	672
Route 258	556	572	588	550	525	525
Route 10	405	405	405	333	306	306

Table X – Trucks Passing Through the Top 10 Hampton Roads Gateways Each Weekday

Data Sources: VDOT, Chesapeake Bay Bridge-Tunnel.

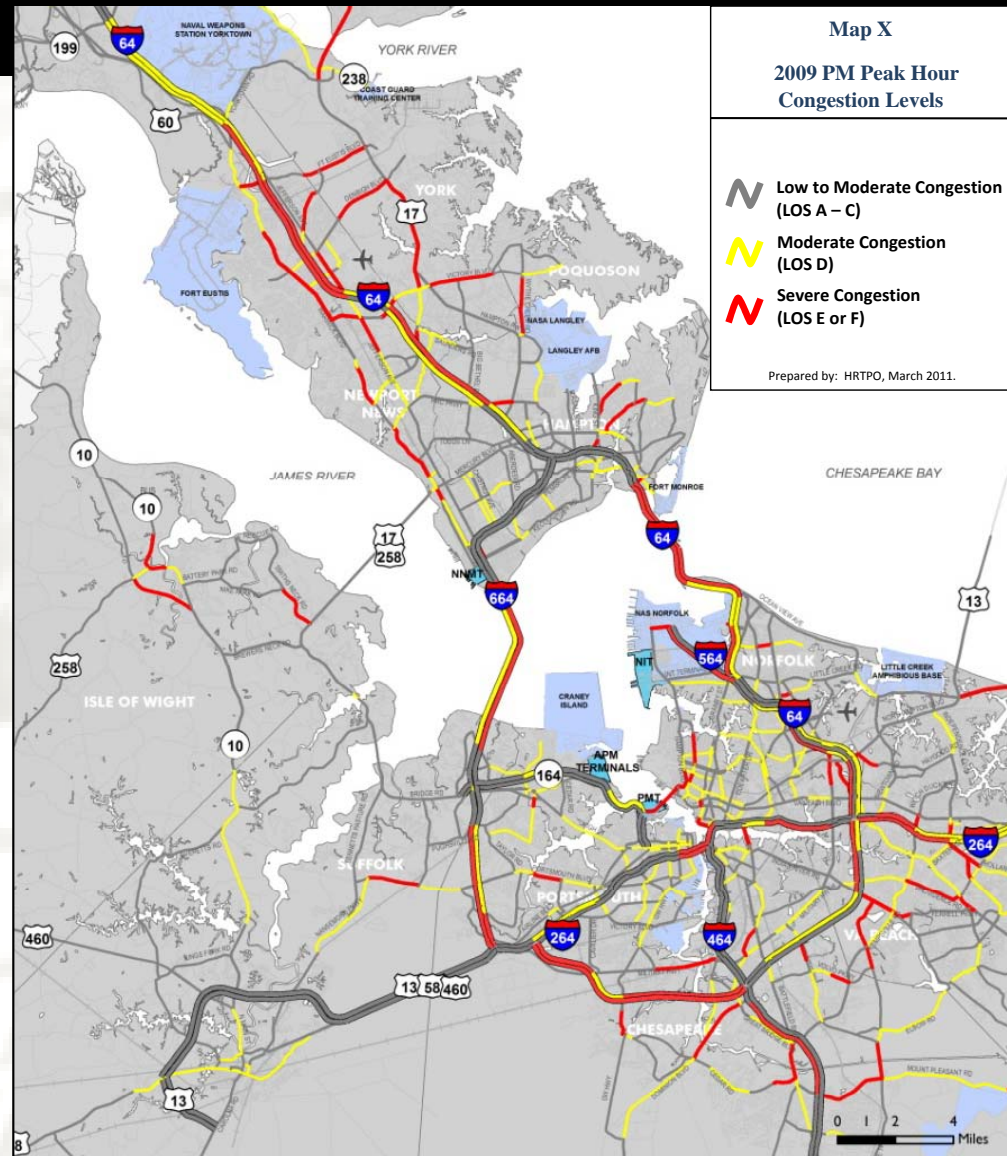
TRUCK VOLUMES

- Many of the Interstates in Hampton Roads carry over 4,000 trucks each weekday.



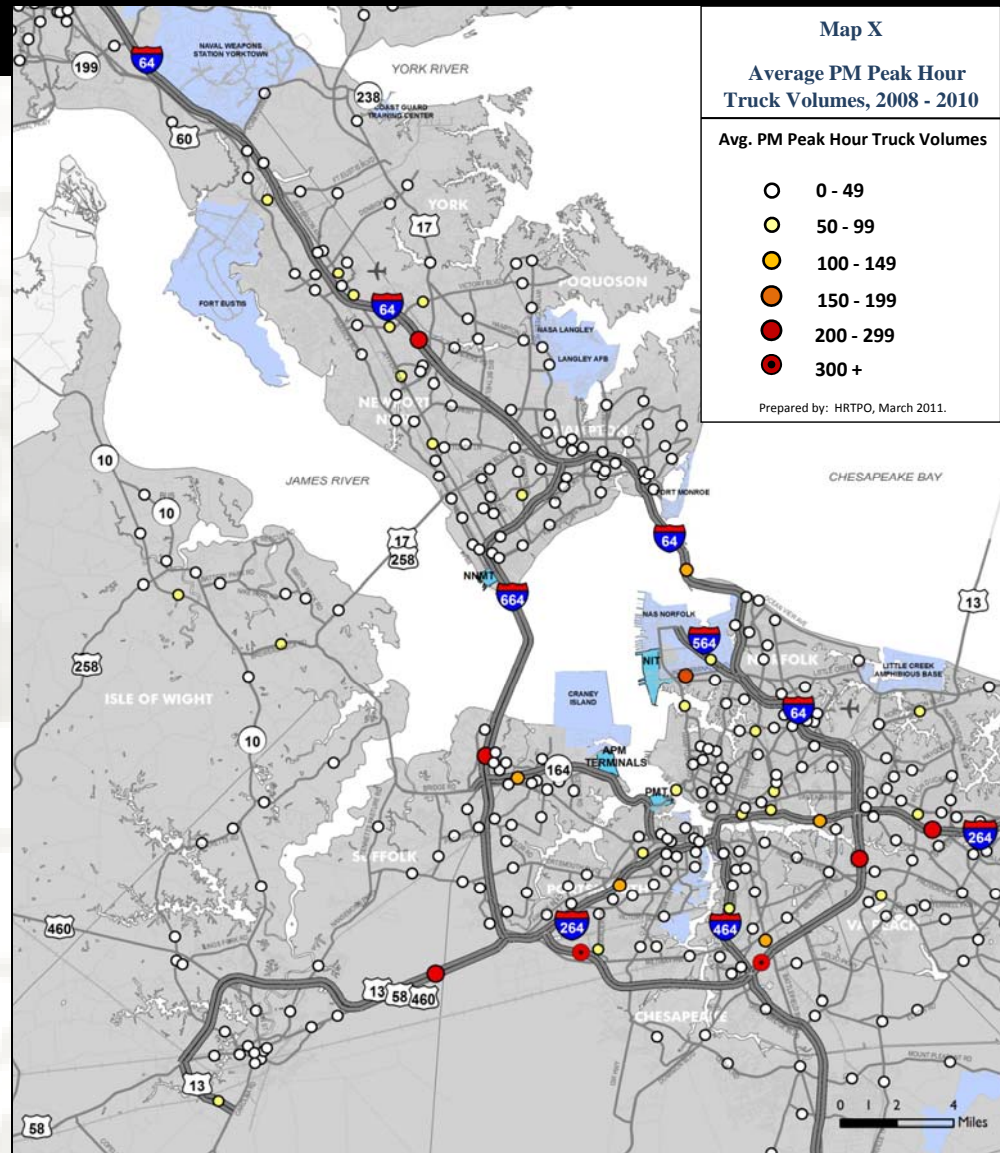
CONGESTION

- 12% of all roadway lane-miles in Hampton Roads are currently congested during the PM peak hour.



TRUCK VOLUMES

- Most of the roadways in the region carry a low number of trucks during the PM peak hour.



ASSUMPTIONS

- Study assumptions included on the enclosed sheet.

Traffic Impact of Hypothetical Inland Port in Hampton Roads Study

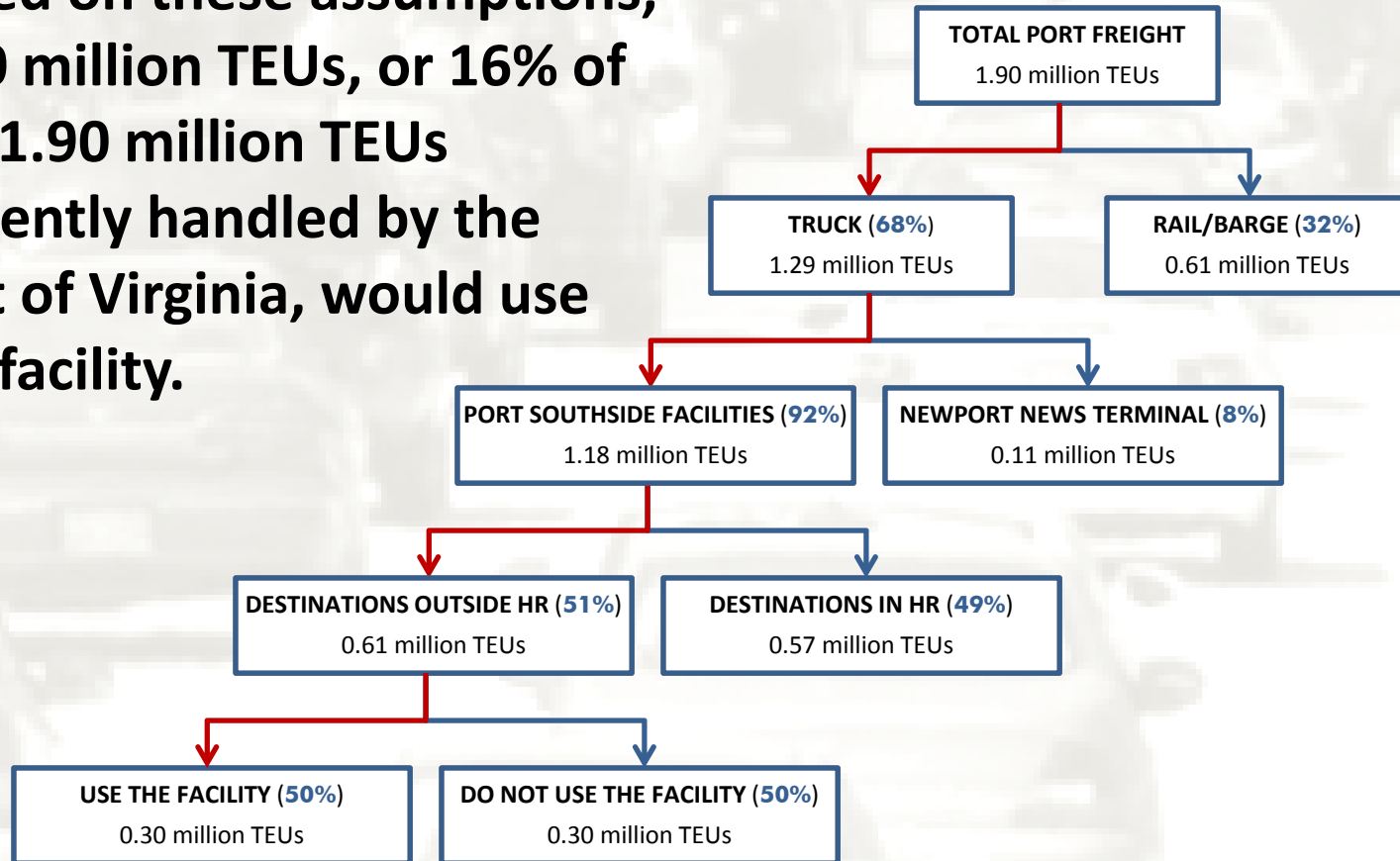
4/4/2011

Assumptions

- 1) For the purpose of this traffic study, the hypothetical facility will be located on the Route 460 Corridor in Isle of Wight County, with access to the Norfolk Southern rail line.
- 2) Only cargo passing through the Port of Virginia facilities on the Southside would be able to use the facility. Cargo passing through the Newport News Marine Terminal would not be able to use the facility.
- 3) Four scenarios will be analyzed as part of this study:
 - A) Current year without facility
 - B) Current year with facility
 - C) 2030 without facility
 - D) 2030 with facility
- 4) The "Current year without facility" scenario will use truck volumes from 2008-2010. Congestion levels for both "without facility" scenarios will be based on HRTPO's 2010 Congestion Management Process report.
- 5) The study output will be a) roadway congestion levels during the PM peak hour, and b) changes in the daily amount of regional vehicle-miles of truck travel.
- 6) The Port of Virginia handled 1,895,000 TEUs in 2010. The Port will handle 7,000,000 TEUs and 3,000,000 containers in 2030, based on projections included in the 2040 VPA Master Plan and VTrans 2035 report.
- 7) The share of port freight transported by truck will decrease from 68% in 2010 to 60% by 2030 as the share of freight transported by rail is expected to increase in the future.
- 8) The hypothetical facility would only be used for loads currently carried by truck to locations west of Suffolk. This comprises 51% of all port-related truck loads, based on data provided by VDOT and M&N.
- 9) Of this freight that can use the hypothetical facility, 50% would use the facility, and 50% would not.
- 10) For both "without facility" scenarios, the path taken by port-related trucks will be based on data provided by VDOT and M&N. For both "with facility" scenarios, the path taken by trucks leaving the new facility will be based on their destinations.

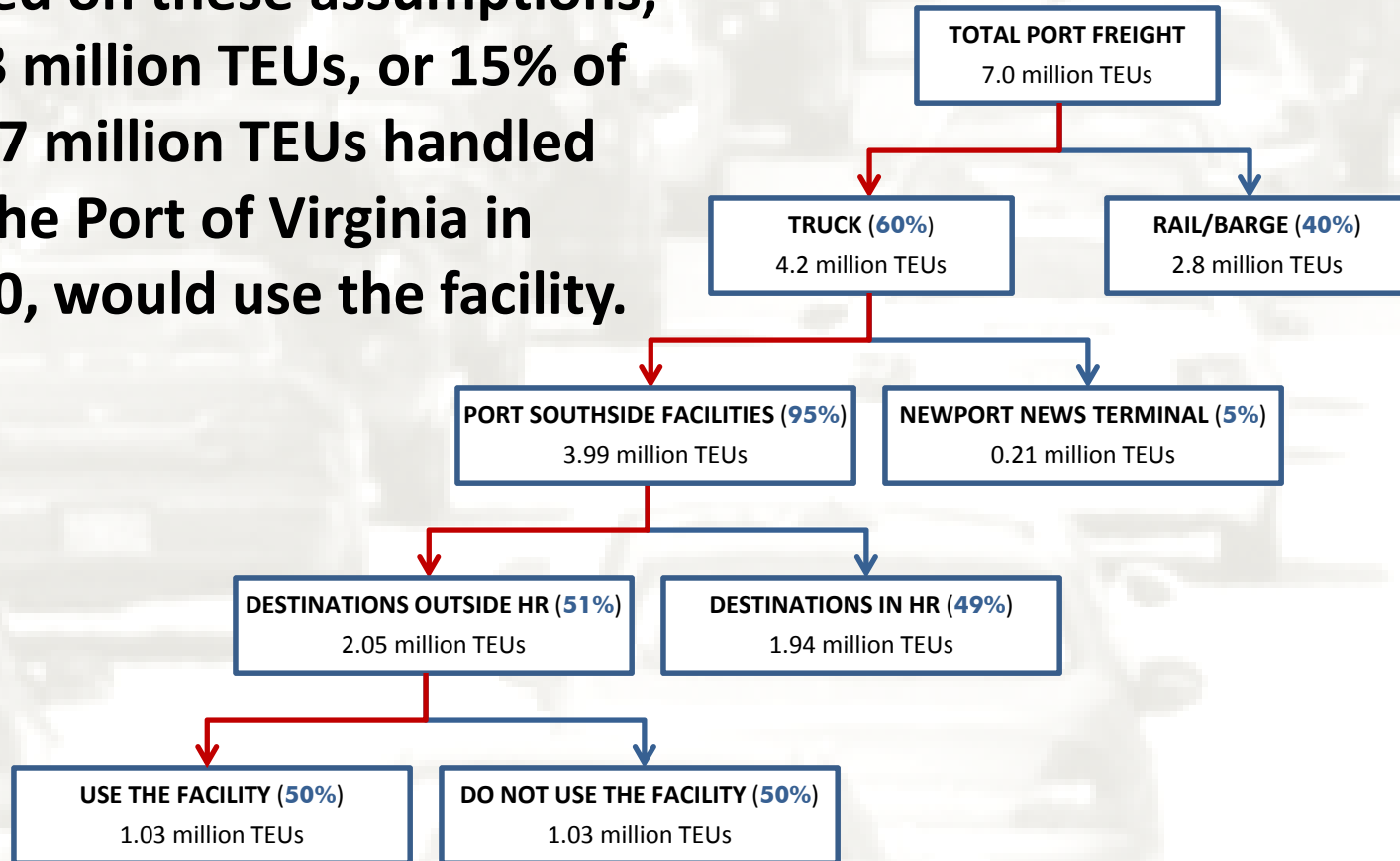
ASSUMPTIONS – CURRENT YEAR

- Based on these assumptions, 0.30 million TEUs, or 16% of the 1.90 million TEUs currently handled by the Port of Virginia, would use the facility.



ASSUMPTIONS - 2030

- Based on these assumptions, 1.03 million TEUs, or 15% of the 7 million TEUs handled by the Port of Virginia in 2030, would use the facility.



FACILITY IMPACT

- **Given that a) port-related truck traffic currently comprises < 1% of regional vehicle-miles of travel, and b) this facility is assumed to handle less than 20% of port-related trucks, it is anticipated that the impact of the hypothetical facility on regional congestion will be minimal.**
- **In spite of this, the fiscal impact of such a facility on the Port of Virginia, users of the port, and the regional economy may, of course, be significant.**

NEXT STEPS

- **Finalize list of assumptions.**
- **Analyze the congestion levels and change in VMT for the four scenarios listed previously.**
- **Provide FTAC with results of the draft analysis.**
- **Complete draft report by June 30th, 2011.**