# Optimizing Our Waterways For Transportation



Siva Narayanan Oct 13th 2010 Philadelphia

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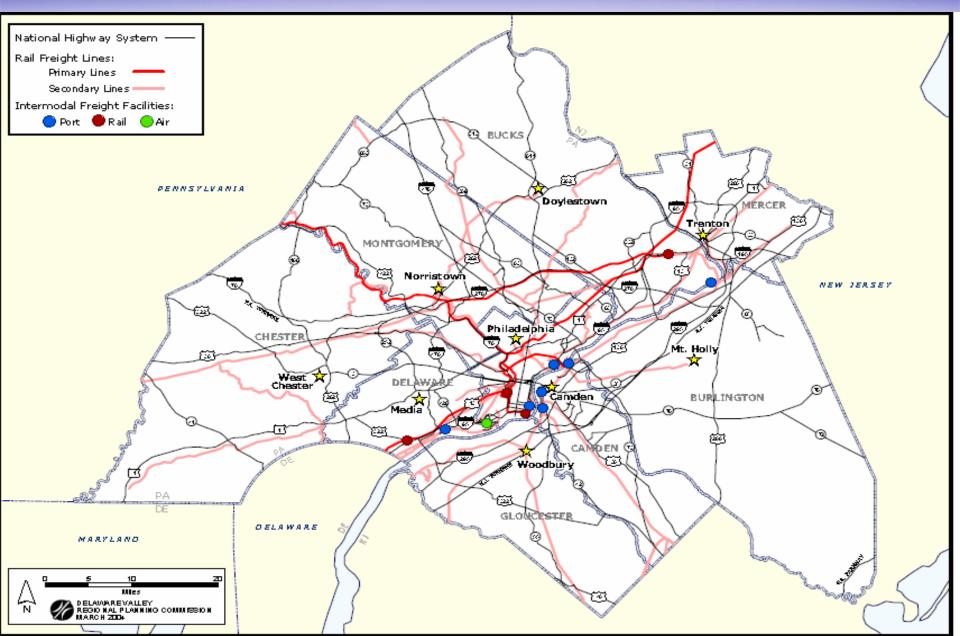
### **Discussion format**

## Appreciation of the situation

- Terrain
- Challenges
- Assets and endowments

Some topics & ideas for discussion

#### The Terrain



#### Challenges

The challenges we face today are

- Truck hours delay
  - 750Khrs to 1700Khrs per annum
- Pollution
  - Diesel sulfur content 500ppm,
- Safety
  - Risks, Direct & indirect accidents in urban areas.
- Infrastructure Maintenance
  - Increasing wear & tear of highways and bridges.
- Sustainability
  - Alternatives for growth

#### Assets & Endowments

- Annual Value of IWW cargo by State in billions
  - PA \$2-5, NJ \$5-10, MD \$2-5, DE 5-10
- Maritime Industries
  - Marine Terminals , Ships, Towboats, Barges, Tugs, Shipyard, Brokers & Agents , Consultants , Attorneys,
- Manufacturing
  - Chemicals , Pharmaceuticals , Foodstuff, light and heavy machinery etc
- Other transportation related
  - Warehousing, Truck terminals, Rail ramp,
- Governmental support for such initiatives
  - \$7.6 billion for the 20-year Inland Waterway Capital Investment Program

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## Some discussion topics

- Land use and Social impacts
  - Land for housing and community instead of widening roads
  - Noise and air pollution; Quality of Life
- Jobs
  - Nationwide shortage of truck drivers
  - New jobs pertaining to waterborne trades
- Development of transloading and intermodal terminals
  - Eg: At Morrisville PA
- Design of ships for costal trade
  - Learn from the Australians who have designed ships for a sustainable costal trade
- Innovate with the current laws
  - Export Initiative
  - Promote a US Merchant Marine fleet
  - Eg: The Jones Act, (possible short term dispensation for funding the initiative)

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# Examples of ships on a costal and ocean going trades



ANL's Bass Trader Built1976 GRT : 6,374 NRT: 2,170 net. DWT: 7,483 dwt. Lbd: 141.97 x 23.42 x 7.182m Vehicles under deck Containers on deck Bow Thruster + Twin screw – CPP Service speed 14.5 knots.

NOL'S ANRO Temasek Built 1978 GRT: 16,353 NRT: 7,166 DWT: 22,195 Lbd: 212.92 x 27.56 x 9.01 m. Vehicle-deck Cellular container Bow Thruster + Single screw – CPP Siva Narayanan / DVRP C presentation Service speed 16 knots.

#### Credits

- Texas Transport Institute study 2007
- Federal Highway Admin Office of Transportation Policy studies
- Report on Freight flows & forecasts in the Philadelphia CSA by DVRPC
- ANL
- NOL