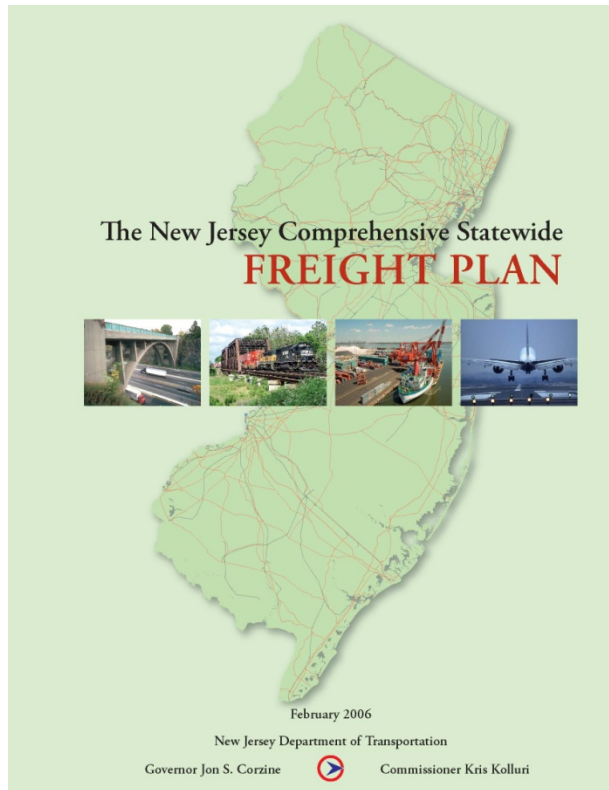


South Jersey Freight Transportation and Economic Development Assessment



The New Jersey Comprehensive Statewide Freight Plan Highlighted Goods Movement Challenges and Opportunities



- *Released in September 2007*
- *Examined all modes of freight movement*
- *Described the freight network from a physical, operational, economic, and citizen's perspective*
- *Identified challenges, trends, issues, and opportunities*
- *Recommended policies, strategies, and actions*

A Freight Agenda has Emerged to Address the Challenges

- *NJ Freight Master Plan II – a Corridor Approach*
- *Statewide Freight Rail Master Plan*
- *Southern New Jersey Waterfront Master Plan*
- *Southern New Jersey Freight and Logistics Industry Context and Economic Growth Visioning Plan*
- *South Jersey Freight Transportation and Economic Development Assessment*



South Jersey Freight Transportation and Economic Development Assessment

- Conducted site-specific transportation assessment of freight transport in the South Jersey region
- Identified region's strengths and key industry clusters
- Examined key issues, needs, opportunities, constraints
- Goal: Develop vision plan with broad-based support

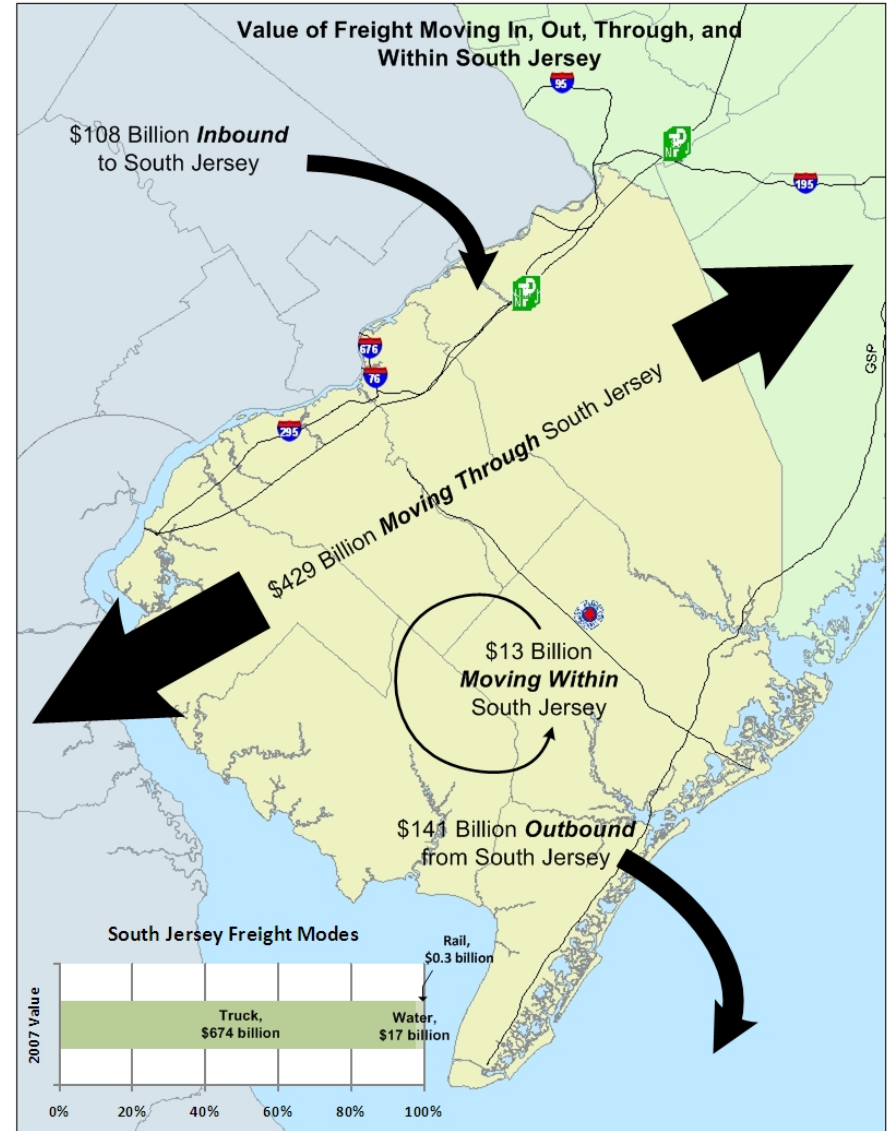
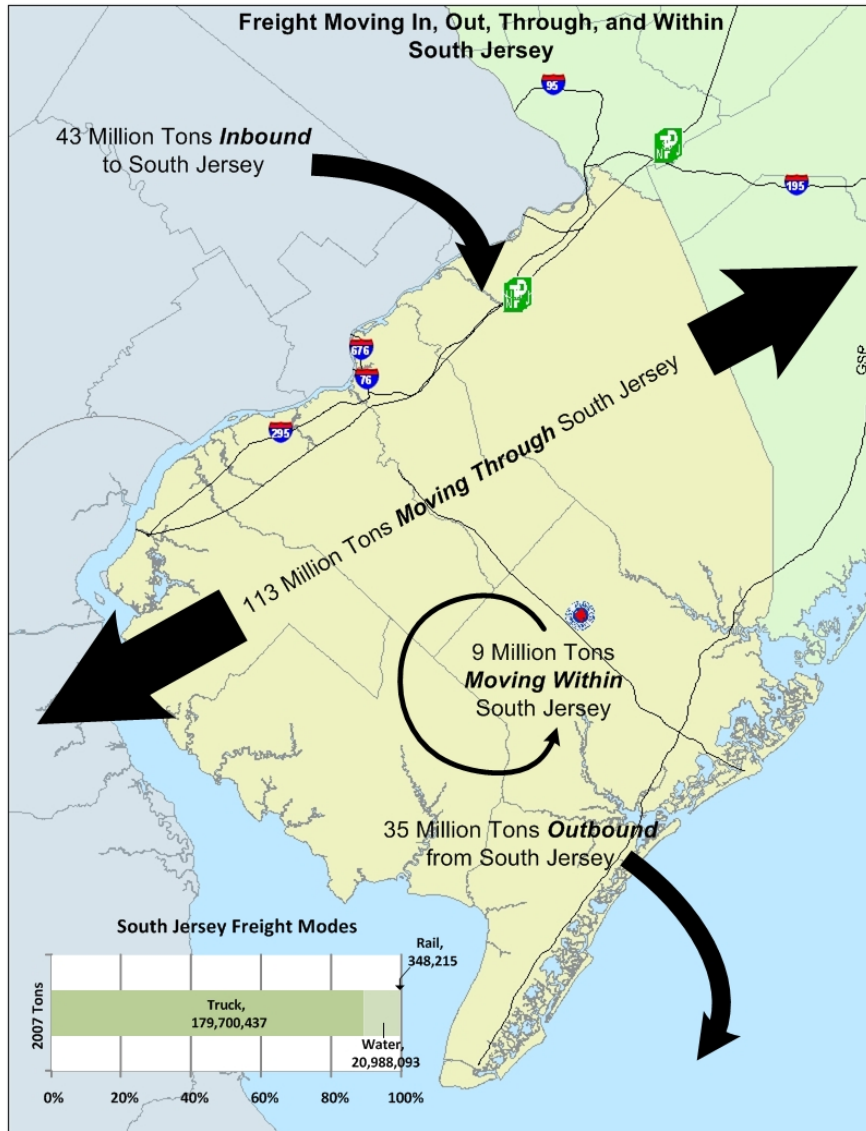


SJ Region's Strengths and Assets

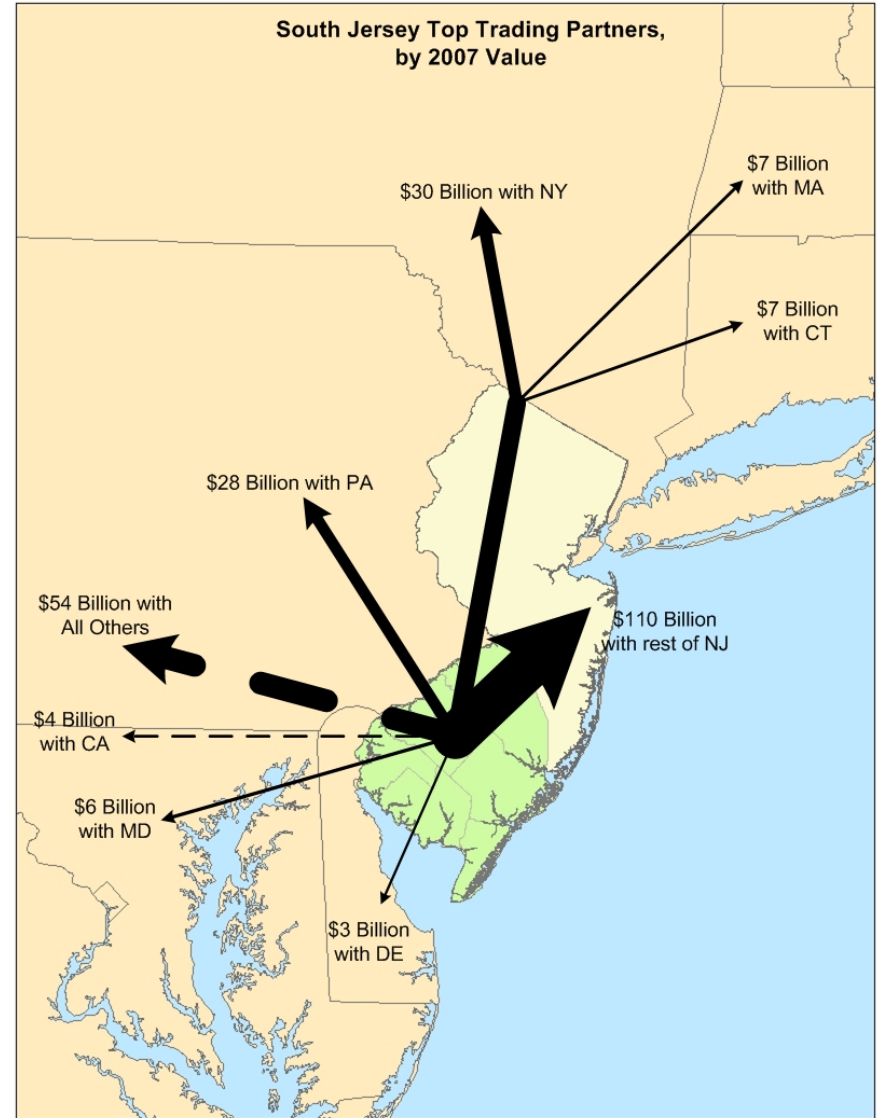
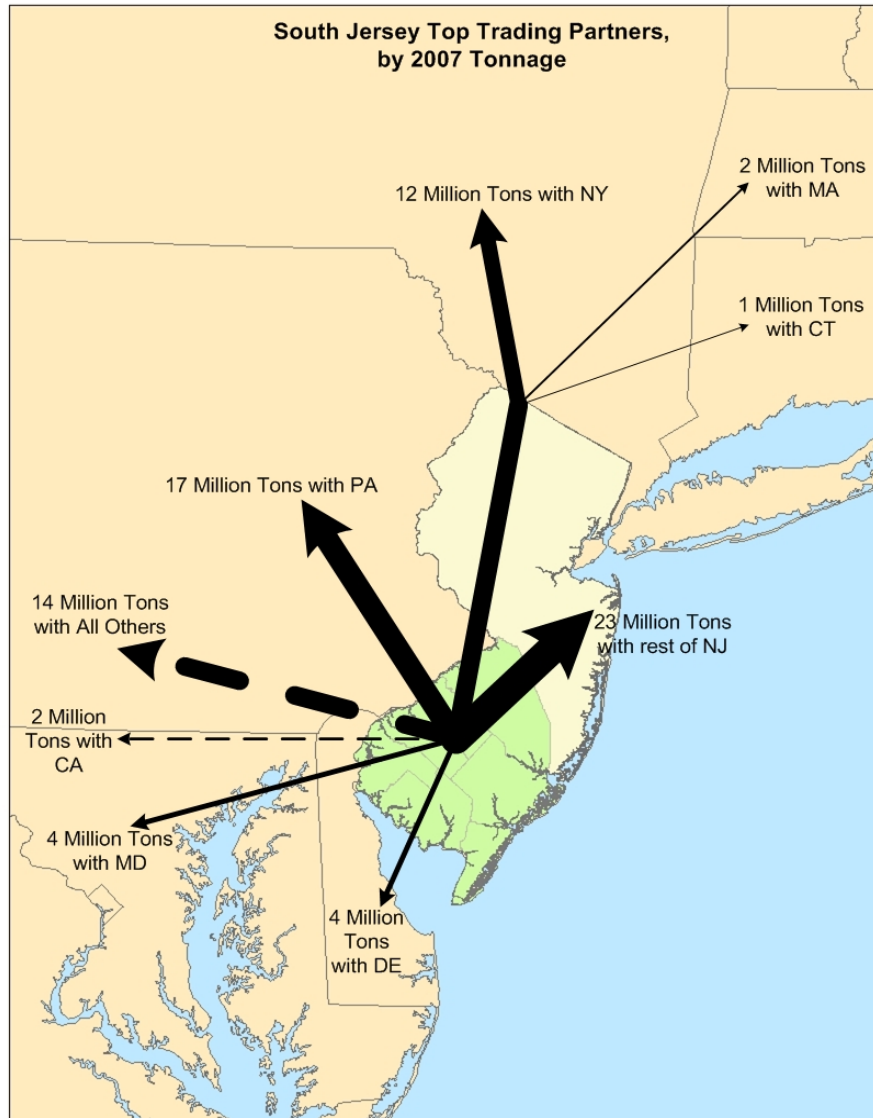
- Available skilled labor pool
- Cost competitive leasing rates
- Proximity to some of the largest consumer markets
- Access to multi-modal supply chain corridor
- Abundant natural resources
 - Aggregates
 - Seafood
 - Prime agricultural farmland soils



SJ Freight Movements



SJ Top Trading Partners



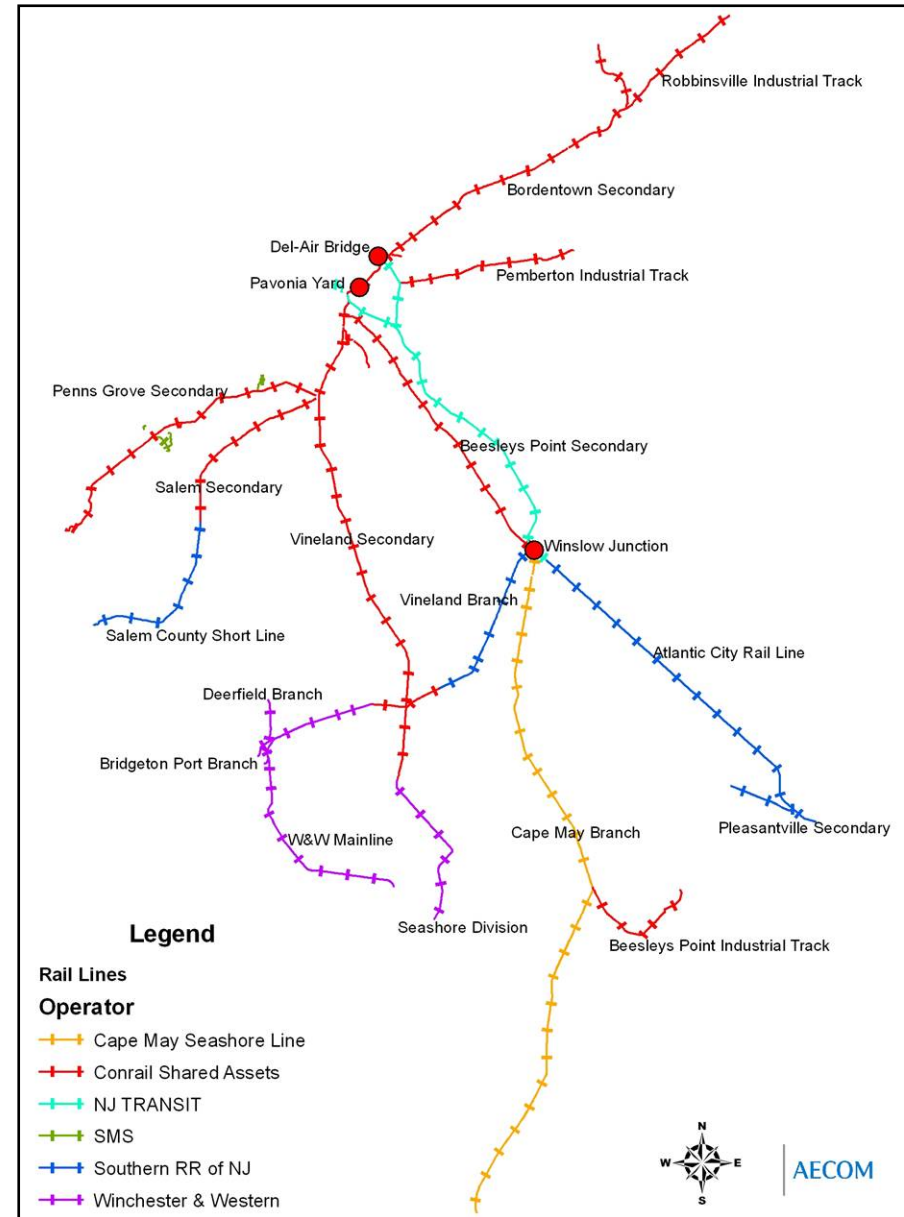
Major Network Elements - Roadways

- Limited Access Highways
 - NJ Turnpike
 - AC Expressway
 - Garden State Parkway
 - I-295
 - I-676
 - I-76
- Other Key Highways
 - U.S. Routes 30, 40, 130, 322
 - N.J. Routes 42, 55
- Delaware River Crossings



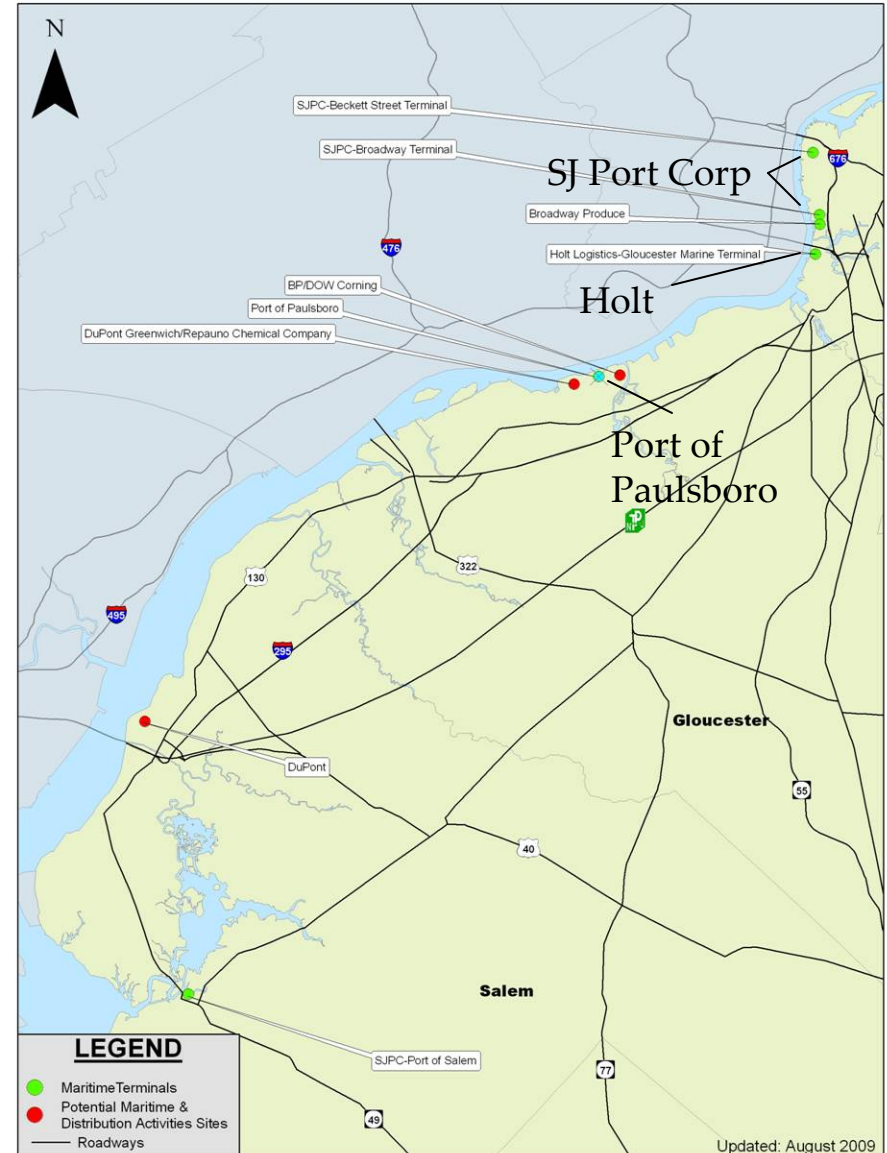
Major Network Elements - Rail

- Philadelphia-South Jersey Conrail Shared Assets Area
- Pavonia Yard
- Del-Air Bridge
- Shortline Operators
 - Cape May Seashore Lines
 - SMS Railway
 - Southern Railroad Co. of New Jersey
 - Winchester and Western (W&W)



Major Network Elements - Maritime

- South Jersey Port Corporation (SJPC)
- Holt Logistics
- Private Terminals
- Maritime network
 - Delaware River
 - Delaware Bay
 - Salem River
 - Cape May Harbor



Major Network Elements – Distribution

- Warehousing/storage areas
- 50 Million ft² of industrial space in Burlington/Camden/Gloucester Counties
- Highway access, land cost/value, and access to markets are critical location factors



Transportation Assessment

- Peninsula effect limits some modes of travel, presents opportunities for others
- Supply chain is multi-modal
- Key Highways are north-south
 - Primary corridors are I-295 and NJ Turnpike
 - Beyond these locational advantages dissipate rapidly as east-west highway capacity is limited
 - Access to NJ 55 more important than extension for this industry
- Rail faces many constraints
 - Limited North Jersey-South Jersey direct rail connections
 - Temporal separation constrains Bordentown Secondary
 - Delair Bridge needs to be upgraded
 - Doublestack capacity not available through Philadelphia
 - Pavonia Yard is at capacity
 - Limited 286k capacity in New Jersey



Industry Clusters

- Supply Chain Corridor
- Delaware River Ports
 - Camden
 - Paulsboro
 - Salem
- Legacy Industries
 - Oil Refineries
 - Chemical Industry
 - Glass Products
- Construction Aggregates
- Agriculture and Food Processing
- Seafood



Three-Stage Visioning Process

1. **Maintain** the current level of activity, jobs, and value to the region
2. **Improve** operations and efficiency of the existing goods movement sector
3. **Expand** opportunities by leveraging the region's strengths and identifying opportunities for synergies



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Supply Chain Corridor



Supply Chain Corridor Highlights and Key Issues

- Multi-modal supply chain focused on I-295 with limited east-west highway and arterial capacity
- Major business and industrial parks total ~50 Million SF among Burlington, Camden, Gloucester Counties
- Highway access, land cost and value, access to markets, proximity to agriculture are critical factors
- Includes both fulfillment centers and value-added processing
- Beyond I-295 & NJ Turnpike locational advantages dissipate rapidly
- Rail faces severe constraints to expansion



Supply Chain Corridor

- Mitigate congestion, fill available capacity
 - “Direct Connection” interchange improvements at I-295/NJ 42/I-76/I-676
 - I-295 northbound to NJ 42 missing move
 - NJ Turnpike Widening - Interchange 6 to 9



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Supply Chain Corridor

- Support specific sites along primary corridor
 - Highway
 - I-295 Int 7 (Gateway)
 - I-295 Int 10 at Center Square Road (Pureland)
 - I-295 Int 40 at NJ 38
 - I-295 Int 52 at Florence/Columbus Road
 - I-295 Int 57 at Rising Sun Rd (truck stop)
 - I-295 Int 57a at U.S. 130 (Haines Center)
 - Rail
 - Double-track Bordentown Secondary and improve sidings to mitigate temporal separation issue
 - Haines Industrial Park has access to the Bordentown Secondary, would benefit from double-tracking
 - New rail switches, etc. at Pureland
 - Burlington County rail freight impacted by constraints at Pavonia

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Supply Chain Beyond I-295

- Rte 55 Corridor - Cumberland, Vineland and Millville Industrial Parks
 - Improve NJ 49/55 interchange
- Rte 42 Gloucester Twp
 - I-295/NJ 42/I-76/I-676 Interchange improvements
- U.S. 130 corridor in Burlington and Camden Co.
 - Improve NJ 42/ US 130 interchange
 - I-295 Int 57a at U.S. 130 (Haines Center)
 - I-95/PA Turnpike/NJ Turnpike

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Supply Chain Corridor

- Logistics expansion for North Jersey Ports
 - Relief valve for container operations constraints
 - Needs double stack north-south rail connection
- Identify potential Freight Village locations at critical mass nodes
 - Highway, rail, port synergies
 - Camden, Paulsboro, others?
- Rail expansion constrained
 - double stack capacity
 - Double-track Bordentown Secondary and improve sidings to mitigate temporal separation issue
 - Delair Bridge Upgrade
 - Reactivation of Blue Comet Line



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Delaware River Ports



South Jersey Ports

Highlights and Key Issues

- Principal locations in Camden, Salem, with new capacity under construction in Paulsboro
- South Jersey maritime operations are primarily bulk and break bulk, not containers
- Camden ports have numerous deficiencies
- Just 1 % of incoming tonnage to SJ moves by water and 5 % of outbound movements
- Salem operations serve niche market
 - Unique shallow port focused on barge-borne bulk and break bulk
- Channel dredging a secondary issue for current SJ port operations



Camden Ports

- Mitigate community impacts, deficient infrastructure, site capacity, highway access
 - On-site rail facilities at ports needs maintenance
 - Improve access to dock at Broadway Terminal
 - Rehab Beckett St berth #1, Broadway Pier #1
 - Broadway terminal internal roadways require significant repairs
 - Beckett and Broadway face storage and warehouse capacity constraints



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Camden Ports

- Mitigate community impacts, deficient infrastructure, site capacity, highway access
 - Pavonia Rail Yard constraints – both facilities and staffing
 - Provide dockside rail to Beckett St
 - New siding for proposed metal recycling wharf
 - I-676 interchange safety and direct connect to port
 - Last mile connections to I-676
 - Local connector to replace Broadway Ave for roadway access
 - Connect Beckett Street, Broadway, and Gloucester Terminals
 - Improved gate access and queuing lanes

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Paulsboro Ports

- Existing operations have poor roadway access, truck impacts to local communities
 - No current planned or proposed improvements
 - Last-mile connector at I-295 Int 19 would provide alternate
- Support new port facilities under construction, potential to open new markets
 - Last-mile connecting road and bridge over Mantua Creek between port and I-295 at Int 19
 - NJ 44 and I-295 Interchanges 19,20,21,22 likely to be impacted by new port
 - Dockside rail loop
 - Rail yard improvements, line upgrade
 - Grade crossing improvement



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Port of Salem

- Rail access virtually unusable
 - Significant rail improvements estimated at \$27 million for Salem County Short Line plus additional \$13 million for dockside improvements
 - Have secured \$1 million grant
- Highway access largely deficient for heavy trucks
 - Further study of NJ 49 and access to I-295



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Delaware River Ports

- New terminals at Greenwich and Carney's Point
 - New rail sidings and on-site facilities
 - New connecting roads
 - Channel access
- Marine Highway Access
 - Port of Salem bulk terminals and barge service
 - Upgrade rail connections to north and east
- Export Platform
 - Leverage available land, labor to take advantage of National Export Initiative
- Channel deepening
 - Deeper channel would attract more and varied businesses, allow existing businesses to expand



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Legacy Industries: Oil Refineries, Chemical Industry, Glass Products



Legacy Industries

Highlights and Key Issues

- Refineries benefit from Delaware River access, proximity to Northeast markets
- Refining at Valero is closed, but distribution continues
- Employers are critical to local economies
- Future may lie in value of sites for redevelopment and reuse as export platforms



Legacy Industries Transportation Issues

- Mitigate track conditions of Penns Grove Secondary
- Glass industry needs improved rail service
 - Improved Salem County Short Line would benefit Anchor Glass operations
- Explore opportunities for reuse as export platforms
- Explore potential re-use options for Valero site, including bio-fuel production
- Explore synergies among silica, glass industry, solar panel manufacturing



Construction Aggregates



Construction Aggregates Highlights and Key Issues

- Region's natural resources include sand, gravel, crushed rock in Cumberland, Cape May, and Gloucester Counties.
- Estimated production is \$120 million per year
- Cost of shipping is a strong factor in competitiveness
- Short line rail and Port of Salem barges are key modes of shipping
- Rail disconnects between South Jersey suppliers and markets in North Jersey and beyond a severe constraint



Construction Aggregates Transportation Issues

- Highway access not a significant factor
- Rail connections between South Jersey suppliers and markets in North Jersey and beyond
 - Opportunity to address disconnects come with physical, operational, cost, environmental constraints
 - Expansion not likely to occur without significant rail improvements
- Marine Highway Access
 - Port of Salem bulk terminals and barge service
 - Upgrade rail connections to north and east



Agriculture and Food Processing



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Agriculture and Food Processing

Highlights and Key Issues

- State ranked 2nd in nation in blueberries and peaches, 3rd in cranberries, bell peppers, and spinach
- Estimated market value of all products sold \$580 million per year
- Perishables must be shipped mainly by truck
- Nature of the New Jersey growing season results in highly seasonal peak demand
- Four of the five leading New Jersey counties in terms of agricultural sales are located in SJ
- Food processing employers stretch across the region
- Access to NJ 55 more beneficial than extension



Agriculture and Food Processing Transportation Issues

- Access to markets
 - I-295/NJ 42/I-76/I-676 Interchange improvements
 - NJ Turnpike Widening - Interchange 6 to 9
- Grain export requires bulk terminals for market-to-pier storage
- Improve rail access
- Expand markets for products including bio-fuel development, and grain export
- Leverage value-added opportunities for SJ agriculture and food processing
 - Synergies among agriculture, highway network, supply chain corridor for bagged produce products



Seafood



Seafood

Highlights and Key Issues

- Cape May-Wildwood port among largest commercial fishing ports in nation
- Estimated market value of all products sold \$600 million per year
- New Jersey seafood is transported throughout the US and overseas
- Middle Thorofare Bridge restricts vessel size and creates a significant bottleneck
- Low volume but high value has specific transportation implications



Seafood Transportation Issues

- Maintain Access to markets
 - I-295/NJ 42/I-76/I-676 Interchange improvements
 - NJ Turnpike Widening - Interchange 6 to 9
- Improve channel access and operations constrained by horizontal and vertical clearance at Middle Thorofare Bridge
 - Replacement bridge and upgrades to Ocean Drive roadway currently under study
- Expansion constraints not transportation-related



Vision

- See the peninsula as an asset
- Bring natural resources to market
- Capitalize on land, labor, and access
- Action plan to implement the Vision
 - Maintain and improve access to supply chain corridor and markets
 - Develop and revitalize port facilities and deepen Delaware River channel to expand movements of water-borne freight
 - Create new marine highway access in Salem
 - Create new regional rail loop to facilitate expansion into more and varied businesses opportunities



Study is Nearing Completion

- Incorporate commodity flow data
- Determine costs and value of improvements
- Draft Tech Memos prepared for each Task
- Assembled to form Draft Final Report
- Presented to study's Technical Advisory Committee, EDA, and DVRPC South Jersey Freight Briefing group



Opportunities for Input

- NJDOT Website
<http://www.state.nj.us/transportation/freight/plan/initiatives.shtm>
- DVRPC Website
<http://www.dvrpc.org/Freight/DVGMTF.htm>
- Contact Project Team:

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Tony DeJohn – PB dejohn@pbworld.com

