

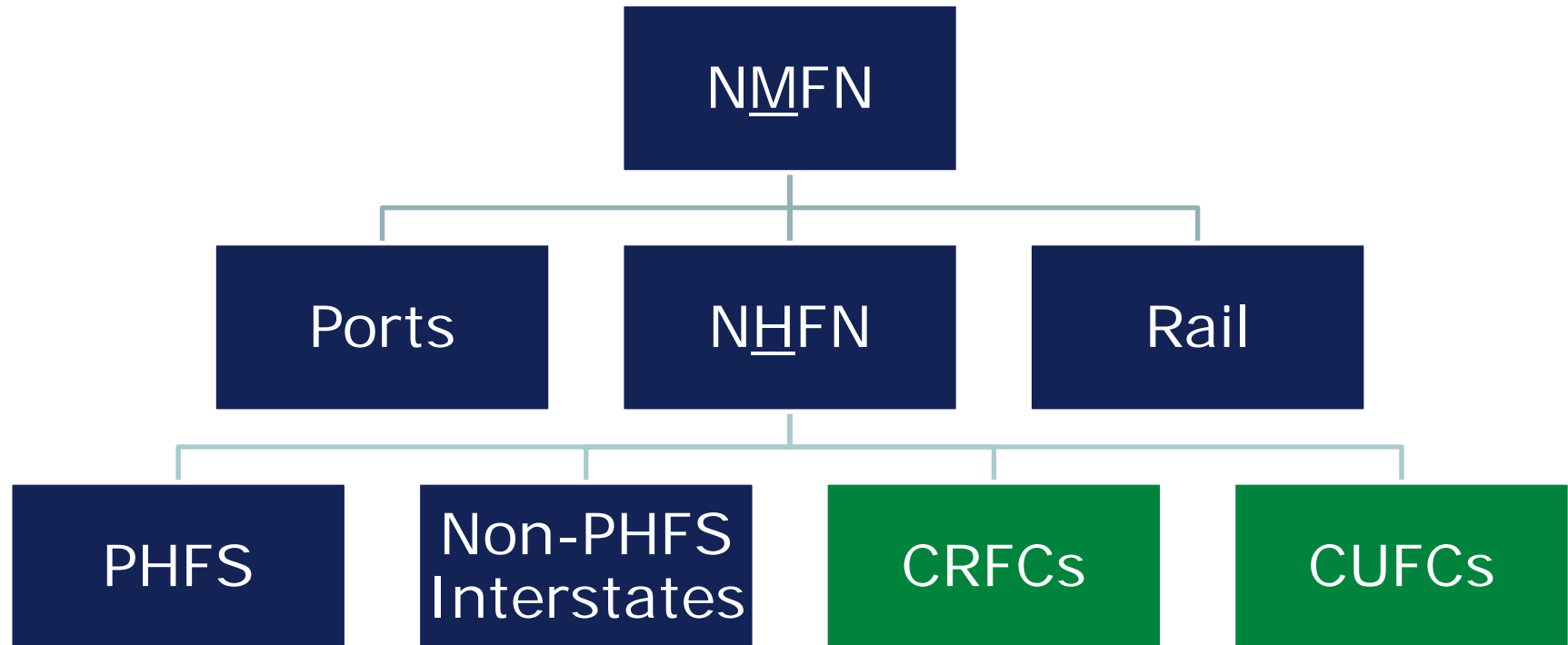


# **Designating and Certifying Critical Urban Freight Corridors (CUFCs) and Critical Rural Freight Corridors (CRFCs)**

**Delaware Valley Goods Movement  
Task Force  
October 14, 2016**

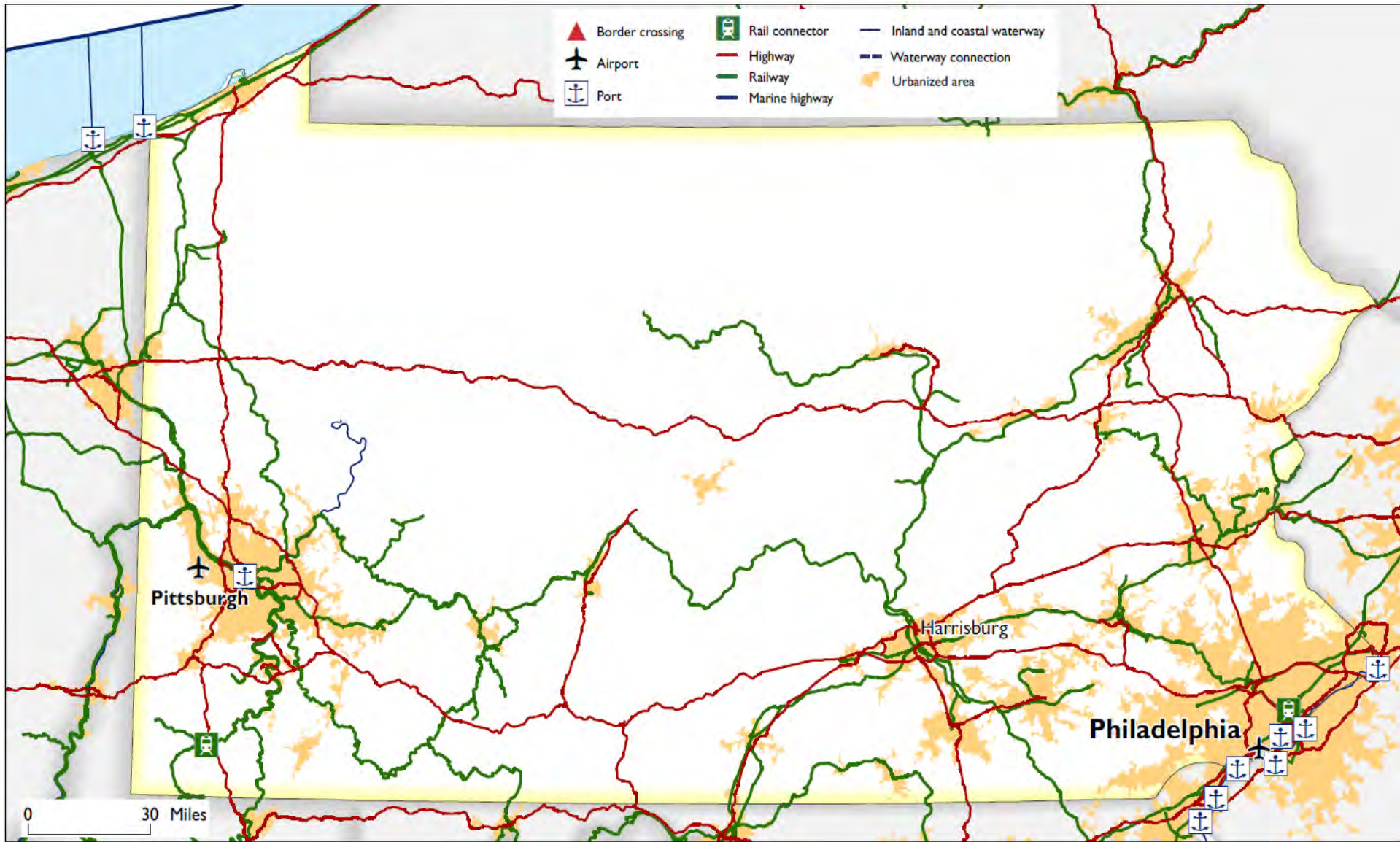
## Our Charge

- Designating Critical Urban Freight Corridors
- Designating Critical Rural Freight Corridors



<https://www.transportation.gov/freight/INMFNTables>

# ► Pennsylvania Interim MFN



## ➤ Critical Freight Corridors (CUFCs and CRFCs)

- Principal arterial with minimum 25% truck traffic
- Access to energy exploration
- Connects PHFS or Interstate to IM facilities
- Provides access to various facility types
- Connects to an international point of entry
- Provides access to significant MM freight facilities
- Is determined by the State to be vital to goods movement
- [http://www.ops.fhwa.dot.gov/fastact/crhc/sec\\_1116\\_gdnce.htm](http://www.ops.fhwa.dot.gov/fastact/crhc/sec_1116_gdnce.htm)

## ► Why is this important?

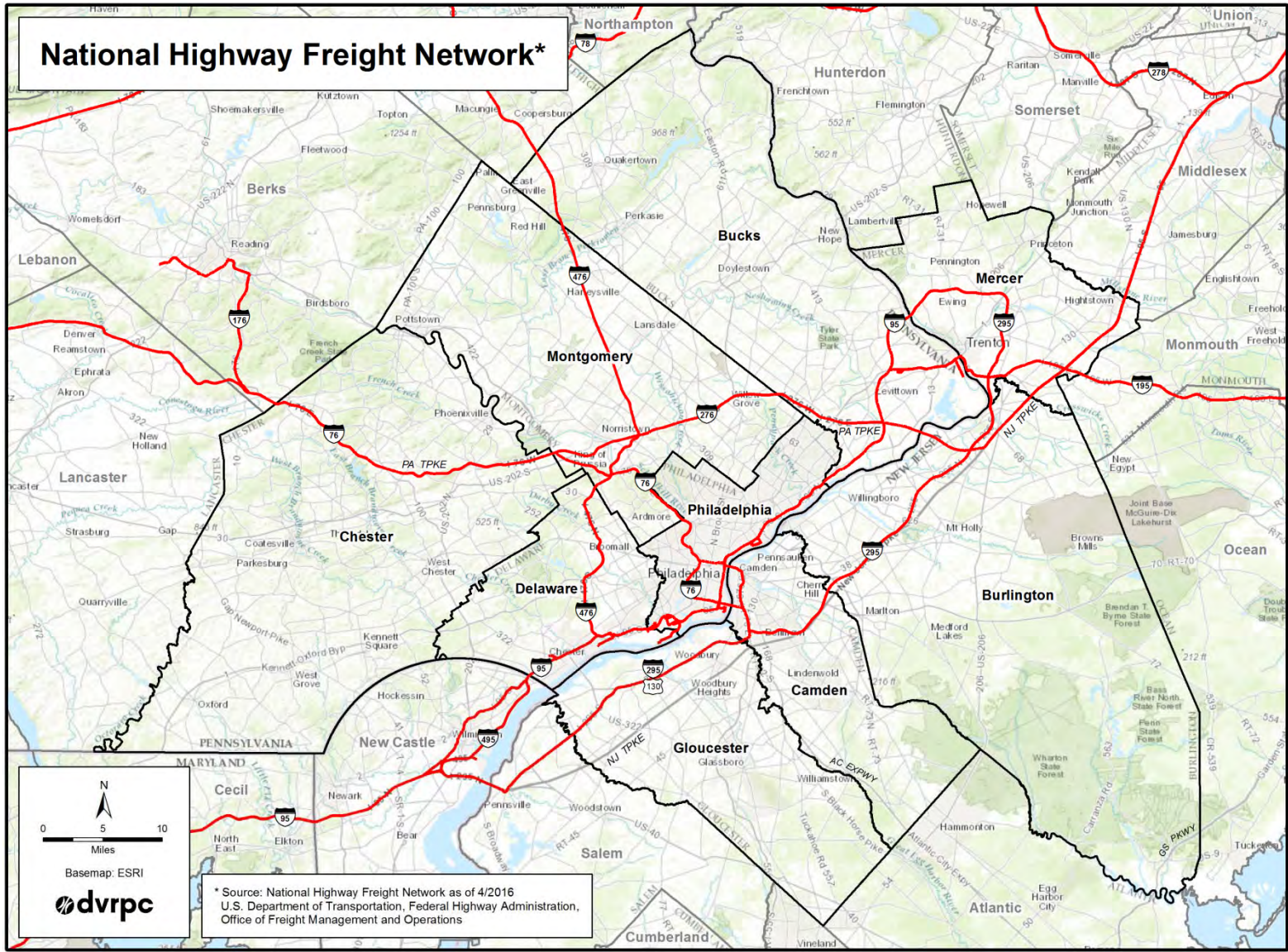
- State freight plan needs to be approved by FHWA before funding distribution
- **Be very critical** in designating critical corridors!
- Through this effort, we're saying what is important to Pennsylvania's economy – the most vital roads supporting the movement of freight.

## Statewide Limits

**CRFCs: 282.53 miles**

**CUFCs: 141.26 miles**

# Delaware Valley Region



\* Source: National Highway Freight Network as of 4/2016  
U.S. Department of Transportation, Federal Highway Administration,  
Office of Freight Management and Operations

# ▶ The Freight Analysis Tool

- Available on SharePoint
  - <http://pennshare.maps.arcgis.com/home/webmap/viewer.html?webmap=3a0839aa61284738aabacad31dcbc778>
  - Includes data layers to assist MPOs/RPOs in identifying their priority freight segments:
    - Urbanized area boundaries
    - Principal Arterials > 25% truck traffic
    - 2017 TYP
    - Class I railroads
    - Freight Finder data from IHS Global Insight
    - Top freight generating locations (as identified in state freight plan)
    - Major intermodal facilities



# Spreadsheets

CRFC_ID	State	State Route Number	County Code	Start Point (Seg Begin)	End Point (Seg End)	Length (ft.)	Priority	Description / Justification
Sample	PA	0034	50	0680	0700	800.26	1	This is an explanation of the segment we believe is the most critical for our area.
	PA							
	PA							
	PA							
	PA							
	PA							
	PA							
	PA							

CRFC_ID	State	Local Street Name	County Code	Municipality	Start Point (Seg Begin)	End Point (Seg End)	Length (ft.)	Priority	Description / Justification
Sample	PA	Smith Street	50	Washington Twp.	Intersection of Jenks Street and PA Route 36	Intersection of Jenks St. and US 322	1325.55	1	This is an explanation of the segment we believe is the most critical for our area.
	PA								
	PA								
	PA								
	PA								
	PA								
	PA								
	PA								

# U.S. Department of Transportation Maritime Administration

## *Freight Challenges and Intermodal Opportunities for Stronger Ports and Waterways*

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Delaware Valley Goods Movement Task Force

Philadelphia | October 14, 2016

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John T. Kennedy  
Director, Mid-Atlantic Gateway  
U.S. Maritime Administration



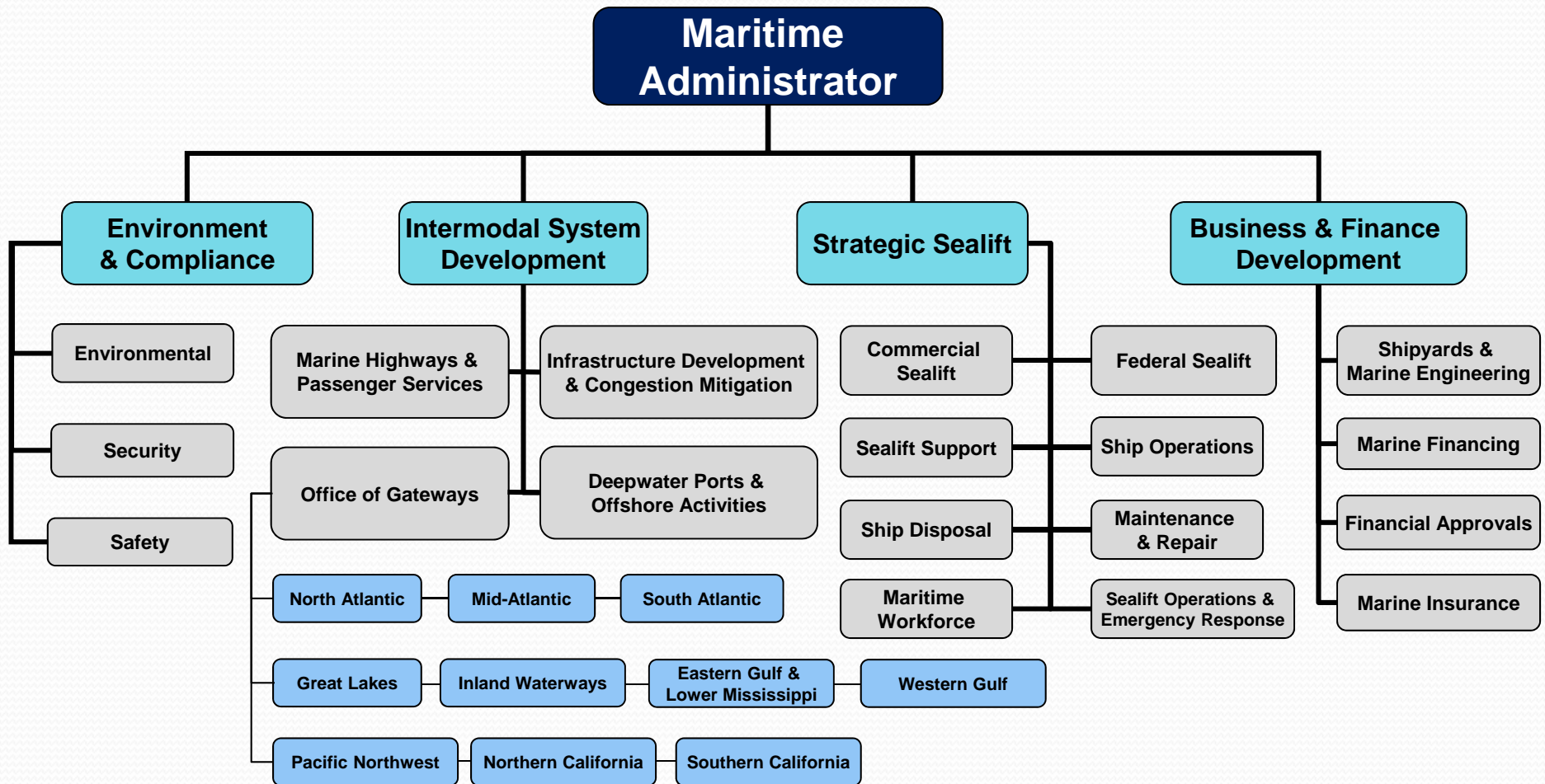


# **U.S. Department of Transportation Maritime Administration**

## ***Mission***

To improve and strengthen the U.S. marine transportation system – including infrastructure, industry and labor – to meet the economic and security needs of the Nation.

# U.S. Department of Transportation Maritime Administration





# **U.S. Department of Transportation Maritime Administration**

## ***Office of Intermodal System Development***

- Congestion mitigation projects, teams and partnerships
- Shipper and carrier outreach
- Port infrastructure and facility development
- Deepwater ports/energy
- Navigation and waterways
- Passenger and cruise industry
- Marine highway services
- Gateway Offices

# Gateway Offices – Program Support

## StrongPorts

- Freight Planning Coordination
- Grant Opportunities (*TIGER, FASTLANE*)
- Delivery of Federal Services (*Consultations*)
- Port Infrastructure Development (*StrongPorts Program Support, Build America Bureau*)
- PortTalk (*Consult, On Site, or HQ*)
- Port Conveyance opportunities

## Marine Highways

- Service Development (*Program Support*)
- Marine Highway Routes (*Application/Selection*)
- Marine Highway Projects (*Application/Designation*)
- Supports Interagency Partnerships
- Planning and Engagement

## Engagement

- Advocacy & Outreach
- Environmental Sustainability/Stewardship
- Port Readiness\*
- Workforce Development



### \*Port Readiness includes:

- ✓ National Port Readiness Network (Strategic Commercial Seaports)
- ✓ Port Resiliency (*Improves the Disaster Resiliency of Ports*)
- ✓ Emergency Support Function (*Emergency Reporting*)
- ✓ Field Crisis Team (*Supporting USDOT Emergency Reporting*)
- ✓ USCG Area Maritime Security Committees
- ✓ FEMA/USCG Port Security Grant Program Reviews
- ✓ Security (*Port, Vessel, Crew, Cyber*)
- ✓ Safety (*Port, Vessel, Crew, and Navigation*)

# *Beyond Traffic: USDOT's 30 Year Framework*



## **Megaregions and Shifts in Population Centers**

**11** megaregions are linked by transportation, economics, and other factors.

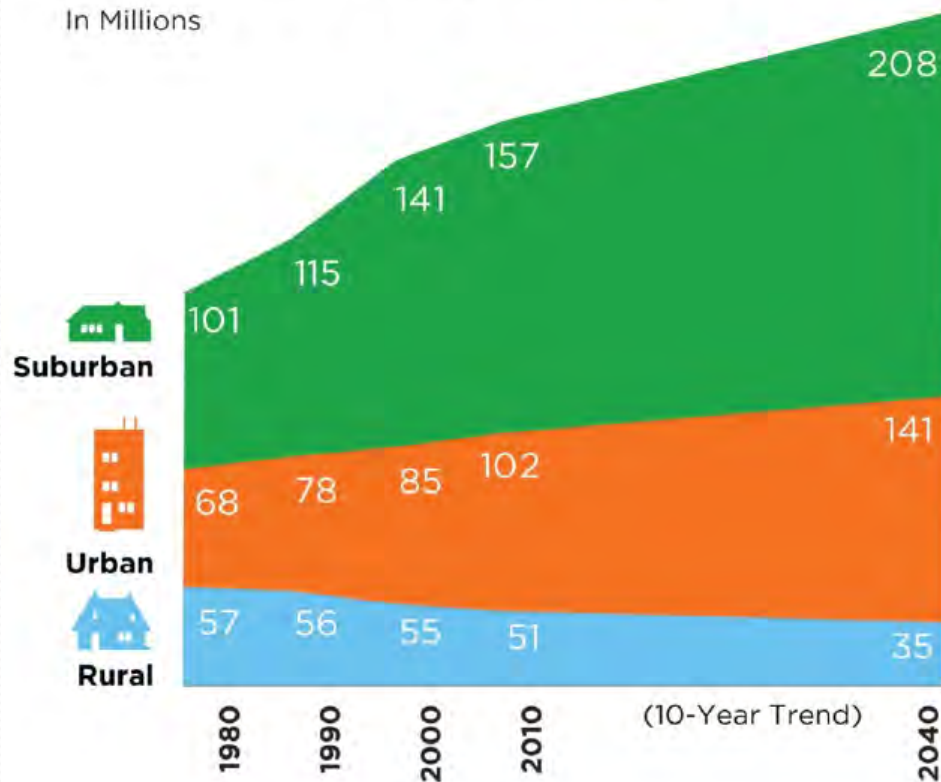
They represent over **75%** of our population and employment.

In 2014, **365,000** people moved to the South—up **25%** from 2013—and moves to the West doubled.

# Port Challenges – A Growing Population Will Stress Transportation System Capacity

## U.S. Population: Urban, Suburban, and Rural

In Millions



## Beyond Traffic framework freight trends:


- Emerging megaregions could absorb 75 percent of the U.S. population; rural populations are expected to continue declining
- By 2045, freight volume will increase 45 percent
- Online shopping is driving up demand for small package home delivery
- Airline mergers and the consolidation of hubs may increase air congestion
- International trade balances, due in part to low U.S. energy costs, could shift from imports toward exports, but overall globalization will increase both, straining ports and border crossings





# *National Maritime Strategy*

- MARAD is developing a National Maritime Strategy to support growth of U.S. maritime industry and ensure availability of U.S. flag vessels for our nation's economic and national security.
- Hosted two three-day National Maritime Strategy Symposium, with over 400 maritime stakeholders in developing five priorities –
  - ✓ Ports
  - ✓ Integration of Waterways into Surface Transportation
  - ✓ Strengthen Capabilities Essential to Economic/ National Security
  - ✓ Workforce Development
  - ✓ Innovation and Technology
- Current Draft in Federal Government review
- Public comment and review period will follow



# *Fixing America's Surface Transportation (FAST) Act*

- Signed into law Dec. 4, 2015, \$305 Billion for five years
- FASTLANE (Nationally Significant Freight & Highway Projects)
  - ✓ Up to \$500M can go towards multimodal projects including ports
- Port Performance Program (annual statistics)
  - ✓ Bureau of Transportation Statistics
- Build America Bureau authorized
- Strengthens MAP-21 freight planning provisions
  - National Multimodal Freight Policy, Freight Strategic Plan
  - National Multimodal Freight Network
  - State Freight Advisory Committees and State Freight Plans



# *StrongPorts Planning & Investment Toolkit*

- A joint venture between AAPA, a working group of 57 industry expert volunteers, and the Maritime Administration
- Toolkit for ports to **access funding** by developing investment grade plans:
  - ✓ Clearly identify future port needs
  - ✓ Determine the most cost-effective, sustainable and efficient solutions to port problems
  - ✓ Get port infrastructure projects into MPO and state transportation programs in order to receive formula funding
  - ✓ Position port projects for federal funding such as TIGER and FASTLANE grants
  - ✓ Assist ports in obtaining private sector investment funds



# *Funding and Financing*

- TIGER Grants
- FASTLANE Grants
- Build America Bureau
  - ✓ Transportation Infrastructure Finance and Innovation Act (TIFIA)
  - ✓ Railroad Rehabilitation and Improvement Financing (RRIF)
  - ✓ Public Private Partnerships
- Port Conveyance Program
- Marine Highway routes, grants for designated projects
- Small Shipyard Grants
- Port Security Grants

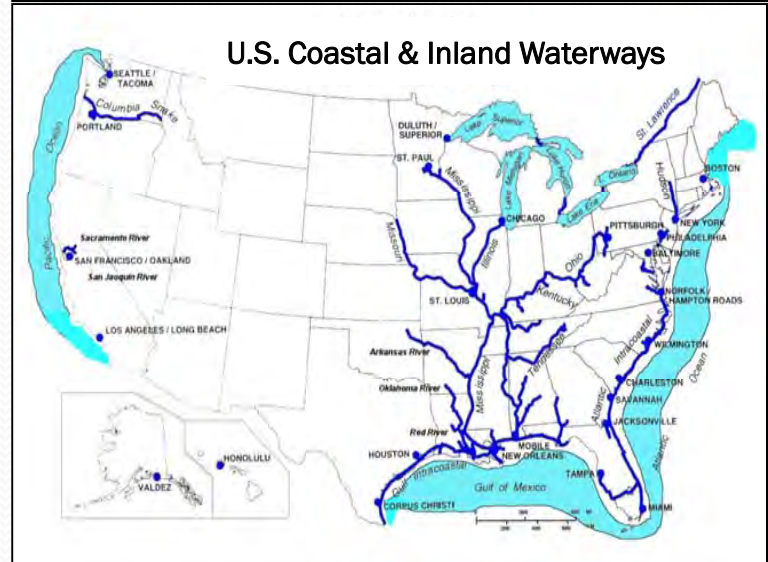


# *PortTalk - A Regional Maritime Collaboration*

- PortTalk engages Ports, State DOTs, MPOs, and other stakeholders to foster dialogue and develop regional maritime transportation priorities
- PortTalk Outcomes:
  - ✓ Understand Port concerns
  - ✓ Identify resources and programs to help build, modernize and expand maritime transportation assets
  - ✓ Spotlight maritime transportation's role in regional transportation system planning
  - ✓ Shipper and shipping-company outreach and needs assessment
  - ✓ Gain understanding of long-range freight system plans
  - ✓ Generate innovative solutions to environmental and logistics challenges

# Growing Congestion and Marine Highways

- International trade growth will increase congestion
- Landside infrastructure can't support the growth. Roads and railroads are near capacity, are costly, and take decades to expand.
- The U.S. moves about 2% of domestic freight by water
  - ✓ Europe - 44%
  - ✓ China - 61%
- The U.S. has about 25,000 miles of coastal and inland waterways that are operating below capacity





# *Small Shipyard Grants*

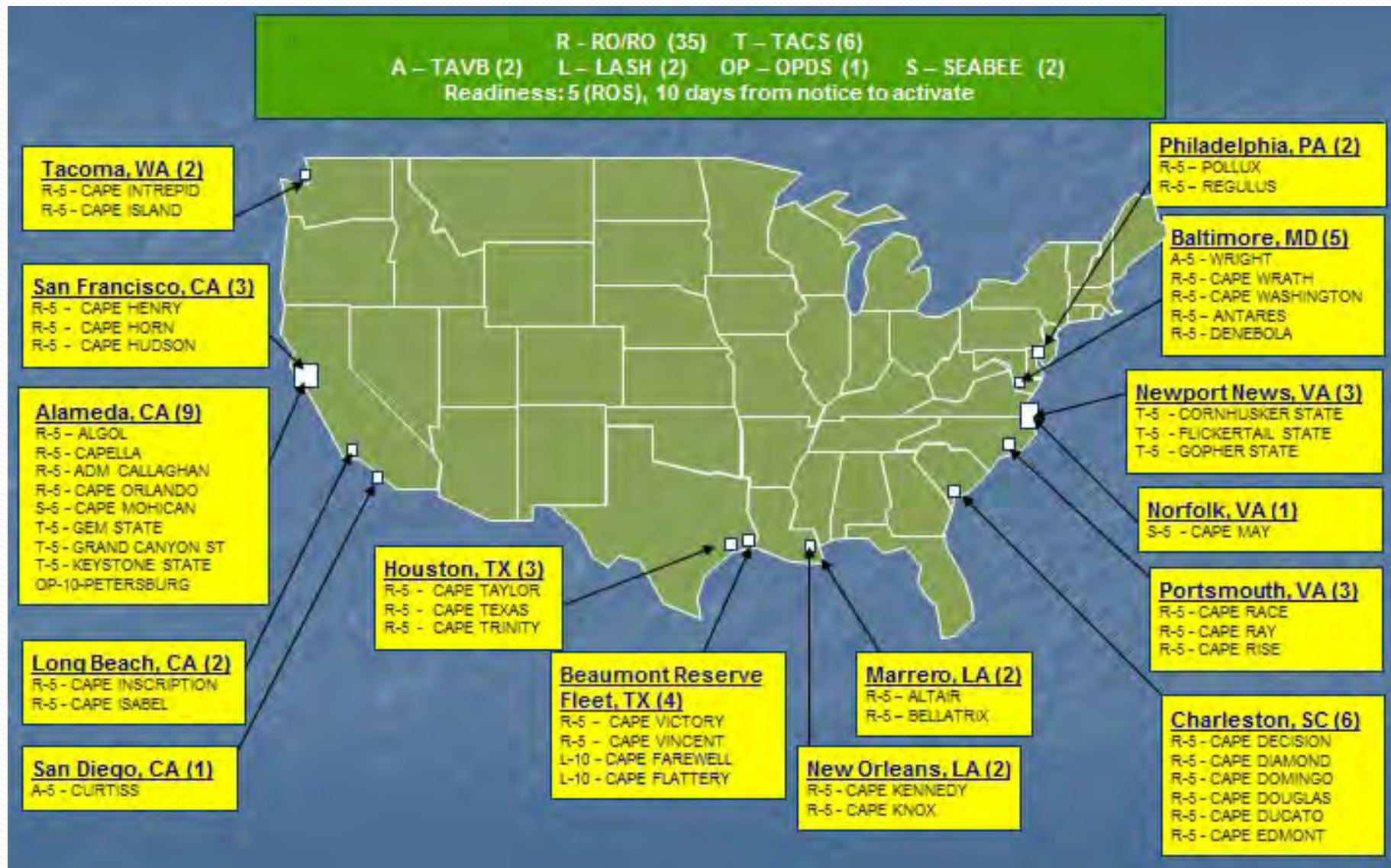
- Funding availability pending FY 2017 appropriations
  - \$4.9 Million awarded in FY 2016
- An eligible **shipyard** is one which:
  - is located in or near a maritime community, in a single geographical location;
  - employs less than 1,200 production employees; and
  - constructs, repairs, or reconfigures commercial or government vessels 40 feet in length or greater (applicant must be the actual operator of the **shipyard**)
- MARAD will also take into consideration:
  - the economic circumstances and conditions of the maritime community where the **shipyard** is located, and
  - the economy of the local, State, and regional areas in which the maritime community is located

# *Ready Reserve Force: Objectives*





# Ready Reserve Force: Homeports



# Contact Information

**John T. Kennedy**  
Director, Mid-Atlantic Gateway  
U.S. Maritime Administration

1200 New Jersey Ave SE  
Room W23-311  
Washington, DC 20590

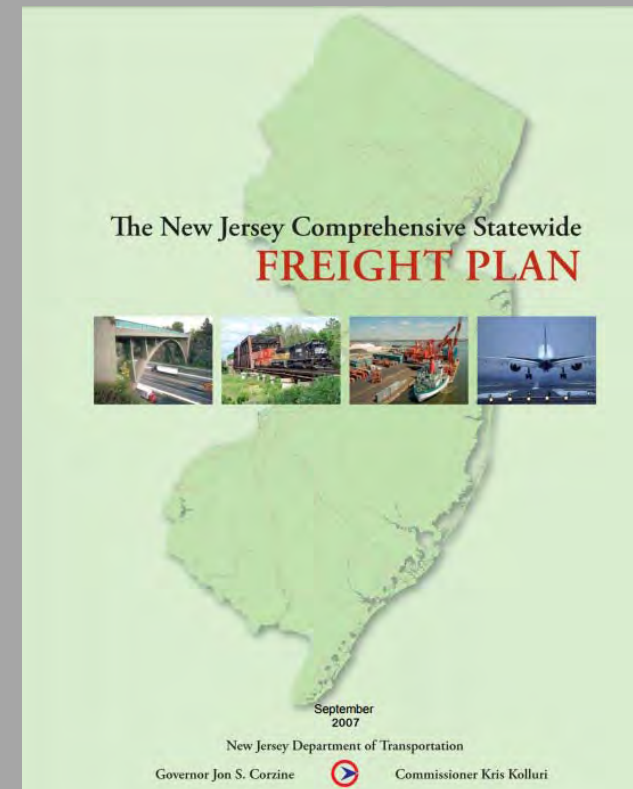
(202) 366-0706  
[john.kennedy@dot.gov](mailto:john.kennedy@dot.gov)



# NJ STATEWIDE FREIGHT PLAN UPDATE



- **Updating the 2007 Plan to be FAST Act compliant**
- **Multimodal Freight Plan constructed through:**
  - **Outreach**
  - **Analysis**
  - **Results**



# FREIGHT OUTREACH

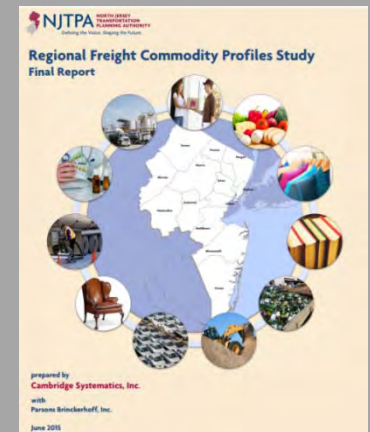


- **Freight Advisory Committee**
- **Local/County Economic Development Decision Makers**
- **Targeted Interviews**
- **MPO Outreach**
- **Public Comments – Crowdsourcing**

# STATEWIDE ANALYSIS



- **Review of Previous Work**
  - NJDOT Studies
  - MPO initiatives and studies
  - Goods Movement Action Plan (GMAP)
- **Inventory of Infrastructure and Supply Chains**
  - Economic Value of Critical Corridors



# STATEWIDE ANALYSIS



- **Development/Confirmation of Statewide Network**
- **Network Performance (per FAST Act Guidance)**
  - **Truck Travel Time**
  - **Mileage Uncongested**
- **Summary of National Trends, Policies and Technologies**



# RESULTS



- **Development of Improvements**
  - **Capital Investments**
  - **Operational Improvements**
  - **Policy Changes**
  - **Expanded use of ITS/Technology**
- **Investment and Implementation Plan**
- **Draft & Final Report**

# SCHEDULE



- **Work initiated in September 2016**
- **Draft Report due to FHWA by September 1<sup>st</sup>, 2017**
- **Final Report due to FHWA by December 4<sup>th</sup>, 2017**



# CONTACT INFORMATION



## NJDOT

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**609-530-3521**

## WSP | Parsons Brinckerhoff

**Stephen Chiaramonte, Deputy Project Manager**

[chiaramonte@pbworld.com](mailto:chiaramonte@pbworld.com)

**609-865-3930**

# NJDOT Freight Management Tool

Delaware Valley Goods Movement Task Force

Friday October 14, 2016



# Goals

- Develop a Freight Management System to:
  - Score STIP projects from a freight perspective
  - Develop freight improvement projects based on freight needs
  - Provide freight input in Capital Program project development
  - Manage freight data



# Background

- Develop a methodology to unify relevant freight data into a single comprehensive data set
- Assigns a score based on the importance of a particular criteria
- Present a score for a particular STIP project or any part of the roadway network defined by the user



# Indicators and Measures

Weight (Out of 100)	Component Weight (Points)	Indicators and Measures
50%	40	Large Truck Crash Rate
	10	Large Truck Severity Rate
5%	1.25	National Highway Network
	1.25	New Jersey Access Network
	1.25	Intermodal Connector
	1.25	Blue Route
45%	20	Percent of Large Truck Volume
	5	Buffer Time Index
	20	Overweight Truck Permits



# Tool

- GIS Web-based system
- Utilized NPMRDS Data in addition to other data
- Currently able to score any STIP project
- Able to generate report on scoring methodology



# FMT Interface

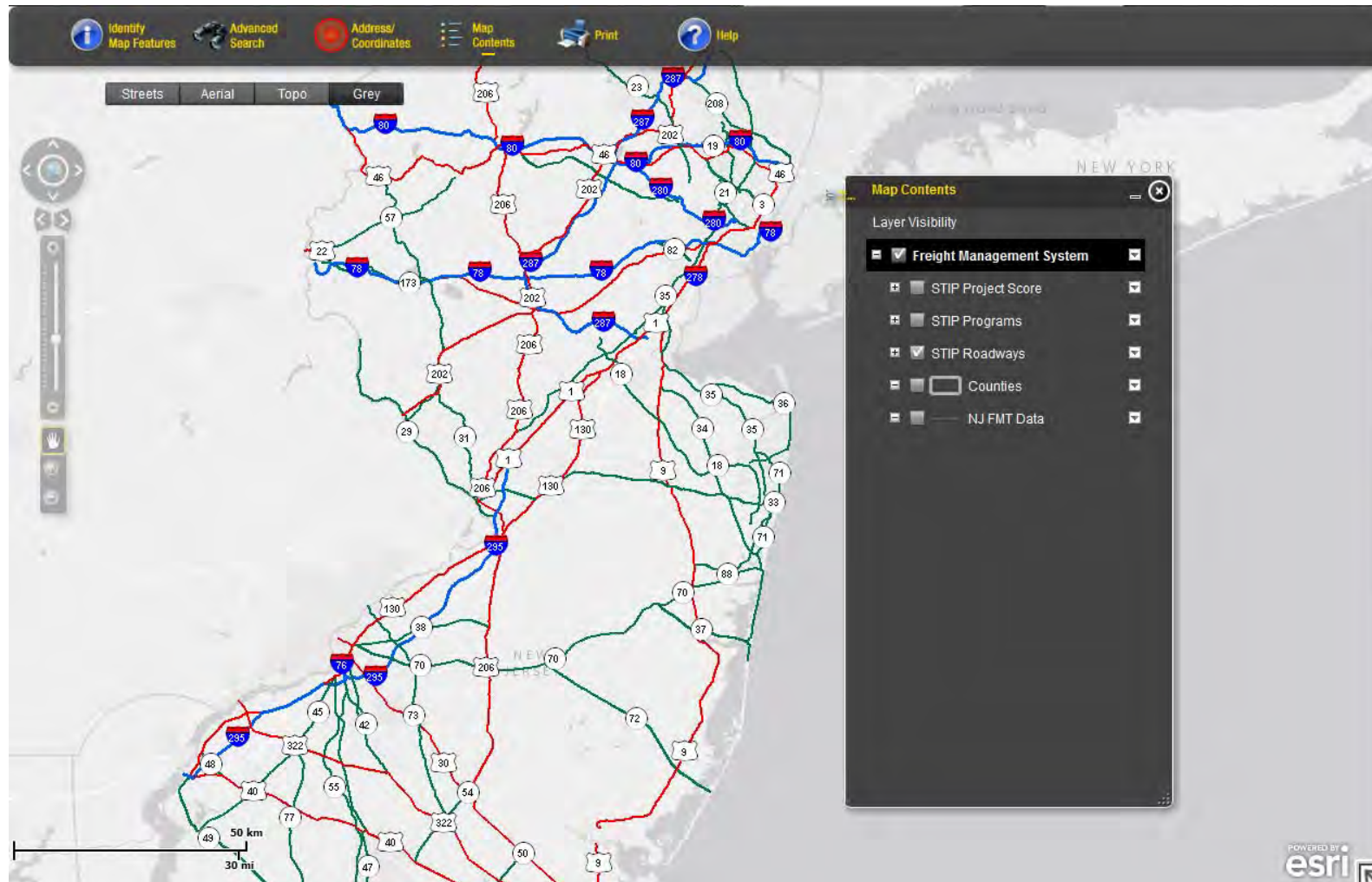


# FMT Interface

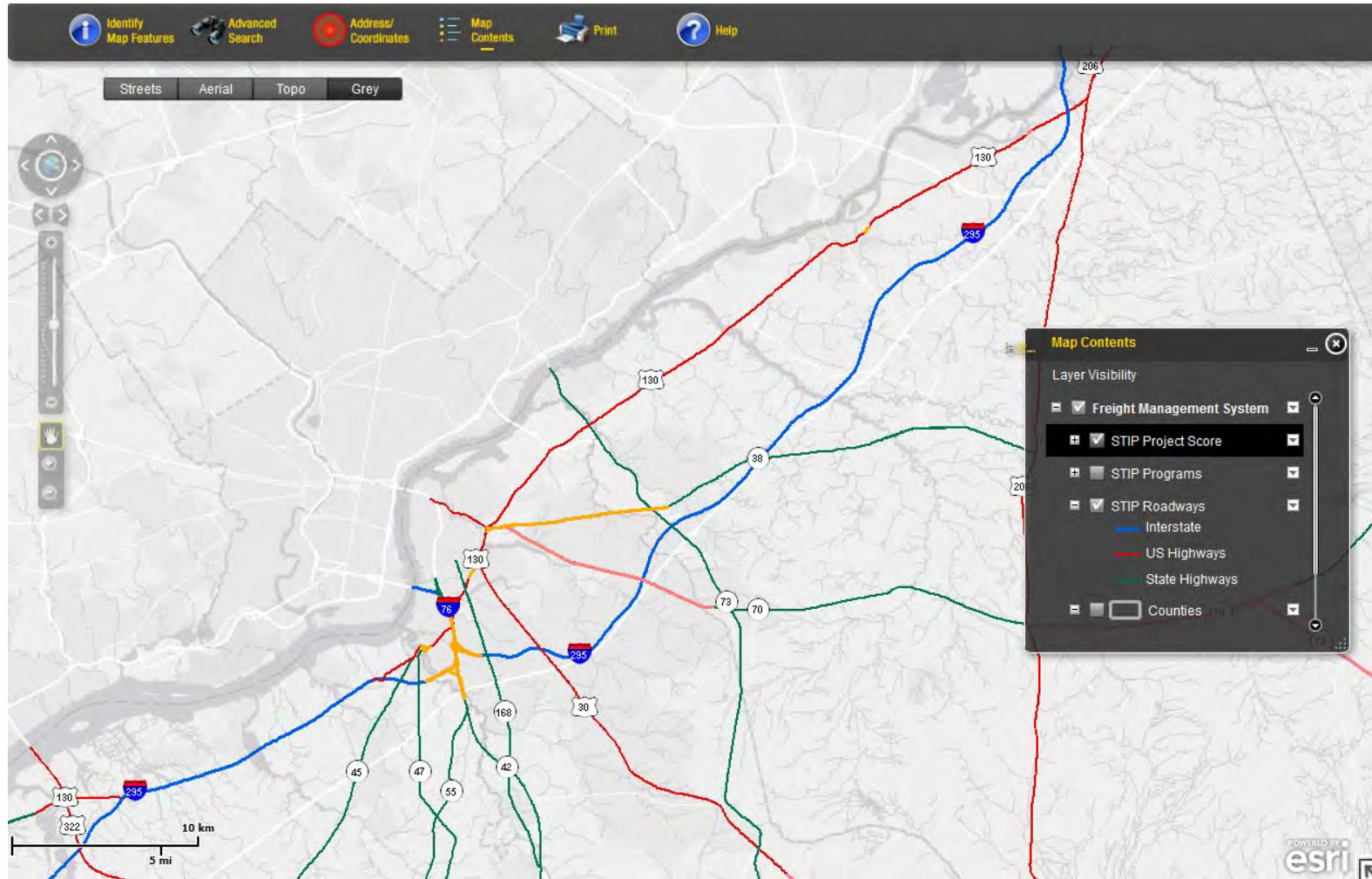




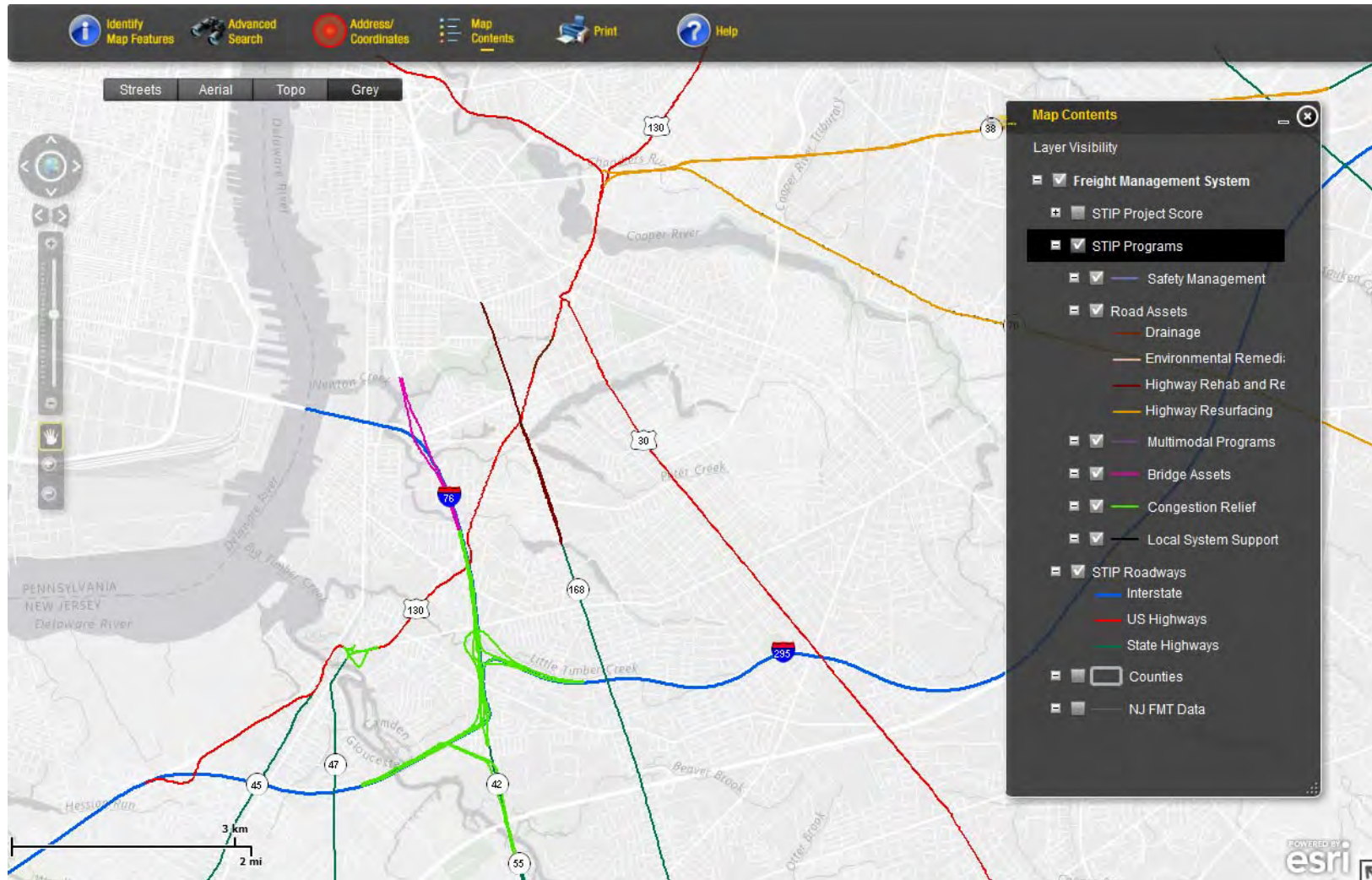
# FMT Interface - GIS



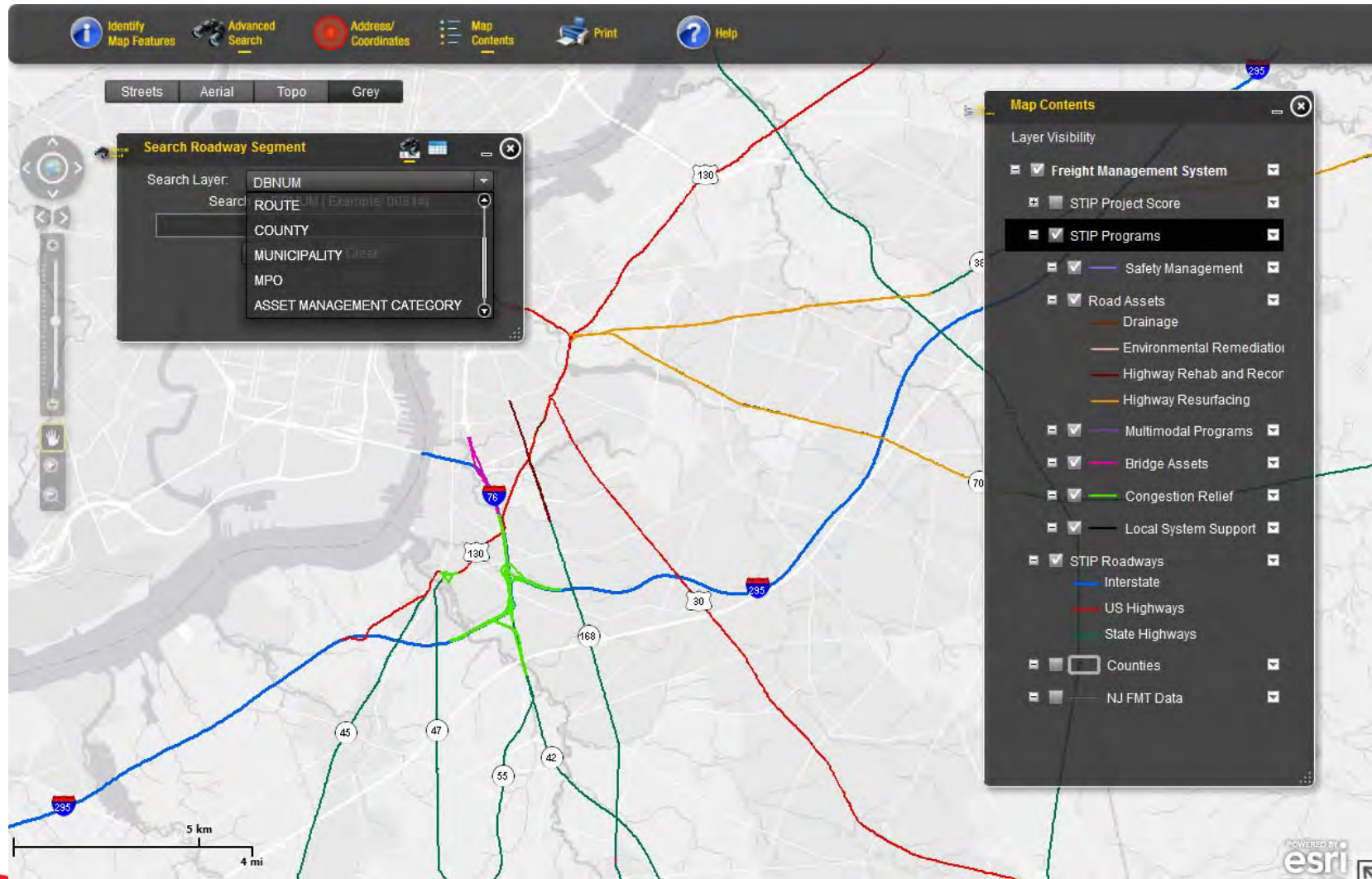
# FMT Interface - GIS



# FMT Interface - GIS



# FMT Interface - GIS



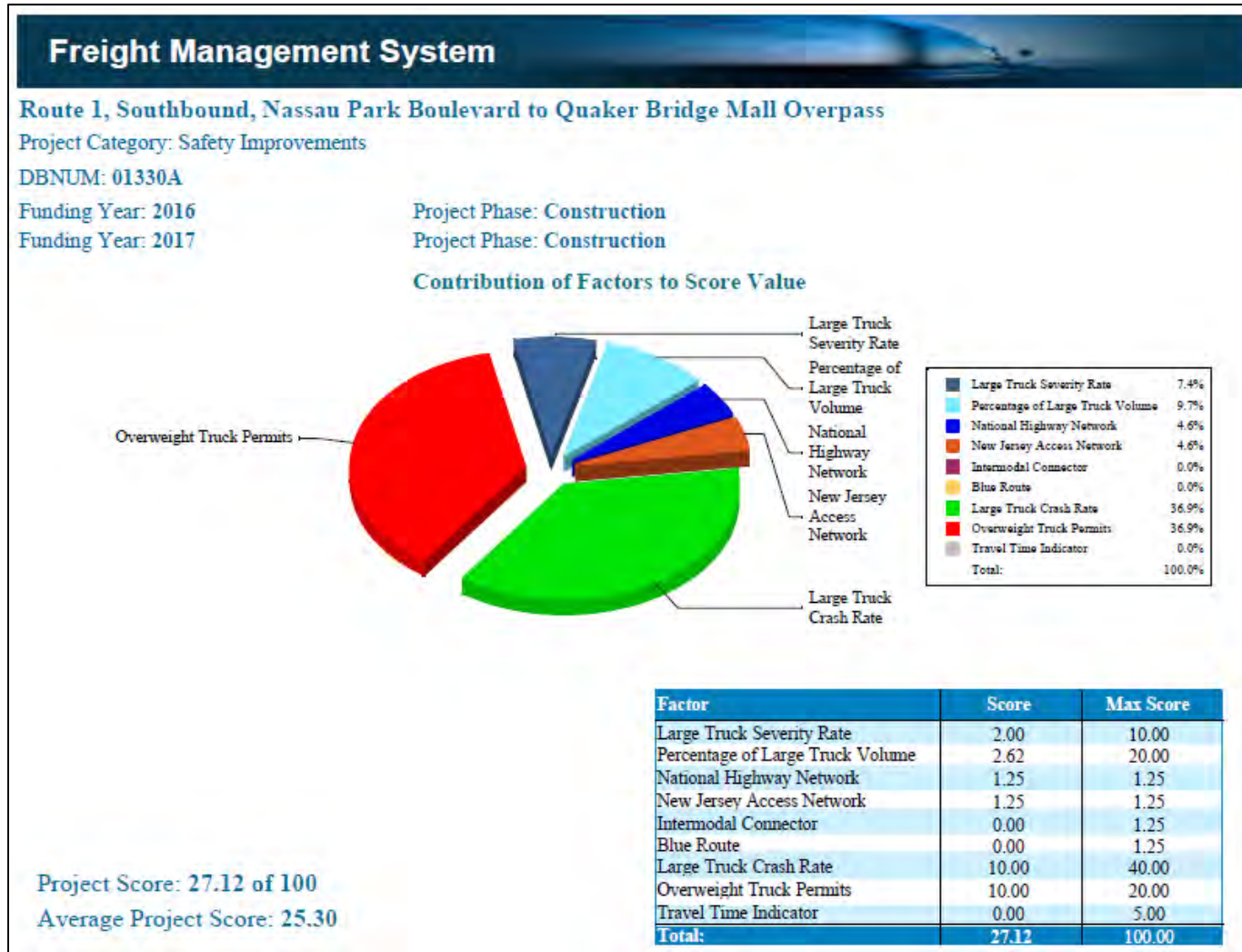
# FMT Interface - GIS

The screenshot displays the FMT GIS interface with several key components:

- Top Toolbar:** Includes icons for Identify Map Features, Advanced Search, Address/Coordinates, Map Contents, Print, and Help.
- Map Style Selector:** Shows 'Streets', 'Aerial', 'Topo', and 'Grey' options.
- Search Roadway Segment Window:**
  - Features Selected: 19
  - Buttons: Zoom, Clear
  - Route 1, Southbound, Nassau Park Boulevard to Quaker Brid...
    - DBNUM: 01330A
    - UPC: 013301
    - COUNTY: Mercer
    - CONGRESSIONAL DISTRICT: 12
  - Route 9, Jobs Creek Bridge
    - DBNUM: 11368
    - UPC: 113680
    - COUNTY:
    - CONGRESSIONAL DISTRICT:
- Map Contents Window:**
  - Layer Visibility
  - Freight Management System (checked)
  - STIP Project Score (checked)
  - STIP Programs (checked)
  - STIP Roadways (checked)
  - Counties (unchecked)
  - NJ FMT Data (unchecked)
- View Scores Window:**
  - Route 1, Southbound, Nassau Park Boulevard to Quaker Bridge Mall Overpass
  - DBNUM: 01330A
  - UPC: 013301
  - COUNTY: Mercer
  - MUNICIPALITY: Lawrence Twp, West Windsor Twp
  - DESCRIPT: This project resulted from a Congestion Management Study. Critical concerns are safety/efficiency in the separation of through and local traffic. Widening of Rt. 1 Southbound to 3 through lanes with a 2 lane Collector Distributor (CD) Road is proposed.
  - ASSET MANAGEMENT CATEGORY: Safety Management - Safety Improvements
  - MPO: DVRPC
  - MILE POSTS: 7.61 - 8.69
  - STRUCTURE NO.: N/A
  - LEGISLATIVE DISTRICT: 15
  - CONGRESSIONAL DISTRICT: 12
- Map Elements:** A scale bar (0-1000 ft), a north arrow, and a 'POWERED BY esri' logo are visible.



# FMT Interface - Reports



# FMT Interface - Reports

## Freight Management System

Route 1, Southbound, Nassau Park Boulevard to Quaker Bridge Mall Overpass

Project Category: Safety Improvements

DBNUM: 01330A

Funding Year: 2016

Project Phase: Construction

Funding Year: 2017

Project Phase: Construction

Contribution of Factors to a STIP Project Store:

Segment	Start MP	End MP	NJ Access ±	Intermodal Connector ±	NHS ±	Blue Route ±	Percent Large Trucks	Large Truck Crashes	Large Truck Crash Rate	Severity Rate	Mean Travel Time	Overweight Truck Permit	95th Percentile Travel Time	Buffer Time Index
1	7.60	7.70	YES	NO	YES	NO	2.62	0	0	0	85.1091205	971	107	0.257209561
2	7.70	7.80	YES	NO	YES	NO	2.62	0	0	0	85.1091205	971	107	0.257209561
3	7.80	7.90	YES	NO	YES	NO	2.62	0	0	0	85.1091205	971	107	0.257209561
4	7.90	8.00	YES	NO	YES	NO	2.62	1	0.124995	0.124995	85.1091205	971	107	0.257209561
5	8.00	8.10	YES	NO	YES	NO	2.62	0	0	0	85.1091205	971	107	0.257209561
6	8.10	8.20	YES	NO	YES	NO	2.62	0	0	0	85.1091205	971	107	0.257209561
7	8.20	8.30	YES	NO	YES	NO	2.62	0	0	0	85.1091205	971	107	0.257209561
8	8.30	8.40	YES	NO	YES	NO	2.62	0	0	0	280.0462633	971	480	0.714002517
9	8.40	8.50	YES	NO	YES	NO	2.62	0	0	0	280.0462633	971	480	0.714002517
10	8.50	8.60	YES	NO	YES	NO	2.62	0	0	0	280.0462633	971	480	0.714002517
11	8.60	8.70	YES	NO	YES	NO	2.62	0	0	0	280.0462633	971	480	0.714002517

\* YES = 1 & NO = 0



# FMT Interface - Reports





# FMT Interface - Reports

Freight Management System

Home GIS Exit

### Search Results

Search Category: All  
 Scoring System: All

DBNUM  
 Project Name  
 Route  
 County  
 Municipality  
 MPO  
 Asset Management Category

Clear Form

Your search results will appear here




Download Selected

\* NOTE: Scoring and Generating reports from the "All" search category will take several minutes to complete.



# FMT Interface - Reports

Freight Management System

 Home
  GIS
  Exit

## Search Results

Search Category: MPO

MPO: DVRPC

Scoring System: FMS Scoring Tool

Search and Score

Clear Form

**Your search returned 35 results.**

☐	Year	DBNUM	Project Type	Project Name	Score	System Name	Options
<input type="checkbox"/>	2016	01323	STIP	Route 168, Newton Lake Dam	8.27	FMS Scoring Tool	<a href="#">Download</a>
<input type="checkbox"/>	2016	01330A	STIP	Route 1, Southbound, Nassau Park Boulevard to Quaker Bridge Mall Overpass	28.48	FMS Scoring Tool	<a href="#">Download</a>
<input type="checkbox"/>	2016	02309	STIP	Route 130, Crystal Lake Dam	32.5	FMS Scoring Tool	<a href="#">Download</a>
<input type="checkbox"/>	2016	02397	STIP	Route 130, Columbus Road/Jones Street	28.5	FMS Scoring Tool	<a href="#">Download</a>
<input type="checkbox"/>	2016	06358	STIP	Route 295, Northbound Approach to Route 1 Exits, ITS Improvements	32.22	FMS Scoring Tool	<a href="#">Download</a>
<input type="checkbox"/>	2016	07319B	STIP	Route 29, Cass Street to Calhoun Street, Drainage	7.5	FMS Scoring Tool	<a href="#">Download</a>
<input type="checkbox"/>	2016	07369	STIP	Route 322, Corridor Congestion Relief Project	8.25	FMS Scoring Tool	<a href="#">Download</a>

Download Selected

\* NOTE: Scoring and Generating reports from the "All" search category will take several minutes to complete.



# Moving Forward

- Refine current data:
  - Integrate WIM Data
  - Integrate INRIX Data for non-NHS roadways
- Integrate historical data to calculate Freight Performance Measures
- Develop a dashboard to track changes in Freight Performance measures
- Develop method to score custom roadway length

