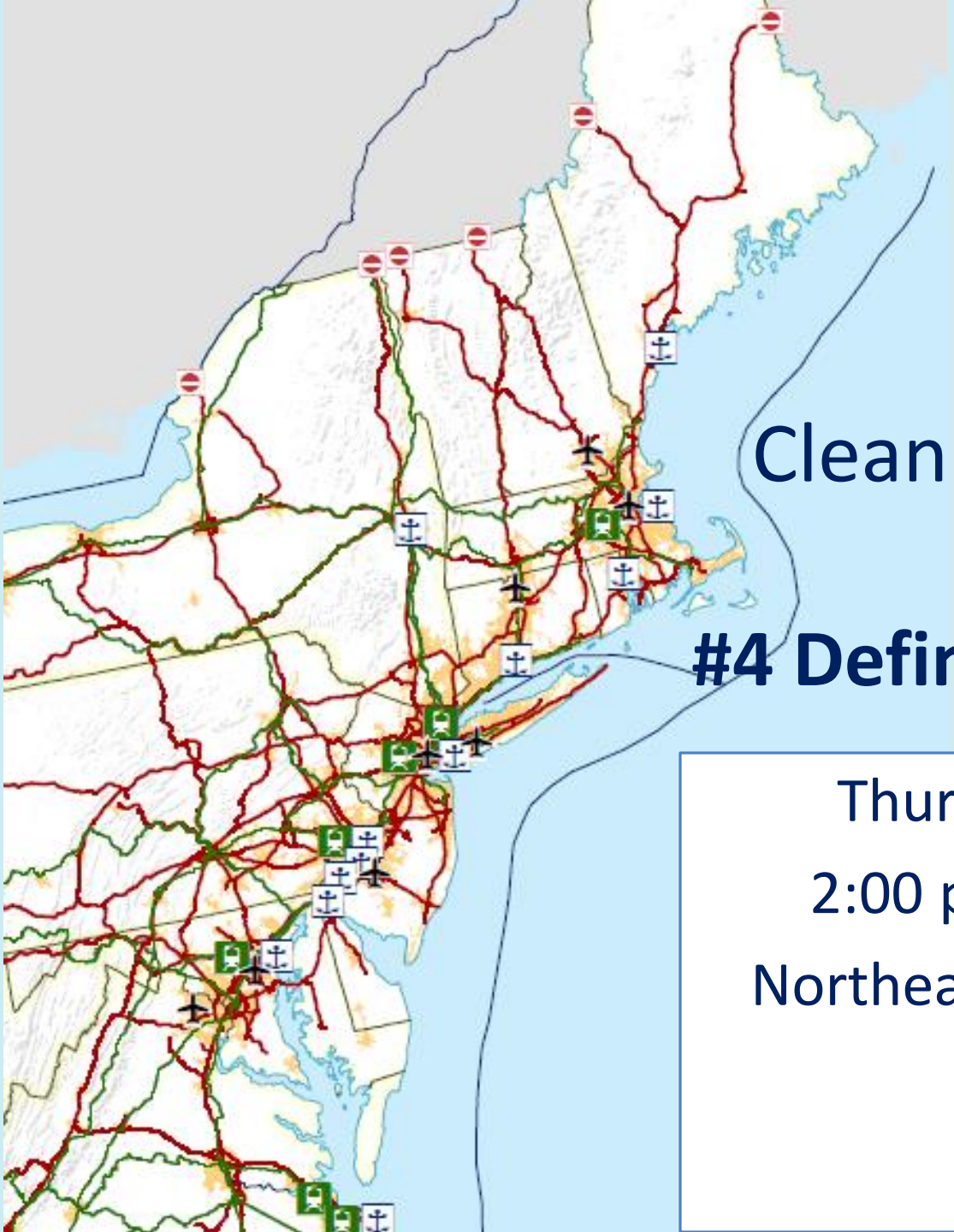

Northeast
Clean Freight Corridors Workgroup
#4 Defining Clean Corridors

Thursday, May 26, 2016

2:00 p.m. – 3:30 p.m. EDT

Northeast Diesel Collaborative

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FOR SUSTAINABLE TRANSPORTATION, GOODS MOVEMENT AND CONSTRUCTION

Agenda

- Welcome & Overview
- Progress Against Workgroup Roadmap
- Today's Topic: #4 Defining Clean Corridors
  - Gerry Bogacz, NYMTC, Regional Freight Plan
  - Lezlie Kimura, CARB, CA Sustainable Freight Action Plan
  - Diane Turchetta, FHWA, Takeaways from #1413 Webinars
- Questions and Workgroup Discussion
  - Abby Swaine, U.S. EPA Region 1

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Clean Freight Corridors Workgroup Roadmap

1# WG Kick Off
February 18, 2016
Importance for Clean Freight Corridor Coordination

2# Funding Clean Corridors
March 29, 2016
Incentivizing Partnerships for Clean Freight Corridors

3# Regional Freight Flows
April 28, 2016
Understanding Freight Flows, Bottlenecks and Areas of Priority

4# Defining Clean Corridors
May 26, 2016
Clean Corridor Definitions for State/Regional Freight Plans

5# Designating Clean Corridors
June 23, 2016
Review Designation #1413 Application Process/Support Regional/NE States Nomination

6# Clean Infrastructure and Equipment
July 28, 2016
Existing and Needed Alt. Fuel Infrastructure

7# Clean Corridor Planning
August 25, 2016
Making the Clean Corridor Connections for DOTs, MPOs and Multi-Modal Partners

Clean Freight Corridors Workshop
Fall 2016

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Today's Workgroup Objectives

Workgroup Session #4 seeks to address the following questions:

- ✓ How do we define **clean corridors**?
- ✓ How does defining **clean corridors** support the national, regional and state freight plans?
- ✓ How does defining **clean corridors** support designation under the Fast Act?

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WG Topic #4: *Defining Clean Corridors*

Today's Presenters:

- **Gerry Bogacz**, Planning Director, New York Metropolitan Transportation Council
  - ✓ Defining Clean Corridors for the NYMTC Regional Freight Plan and preparation for FAST Act #1413 Designation Application.

- **Lezlie Kimura**, Transportation and Toxics Division, California Air Resources Board
  - ✓ California Sustainable Freight Action Plan – Multi-Agency (CARB, CEC, & Caltrans) collaboration effort to improve efficiency and emission reductions across transportation network.

- **Diane Turchetta**, Transportation Specialist, U.S. DOT Federal Highway Administration
  - ✓ Key takeaways from FHWA FAST Act Section #1413 Stakeholder Feedback Webinar.

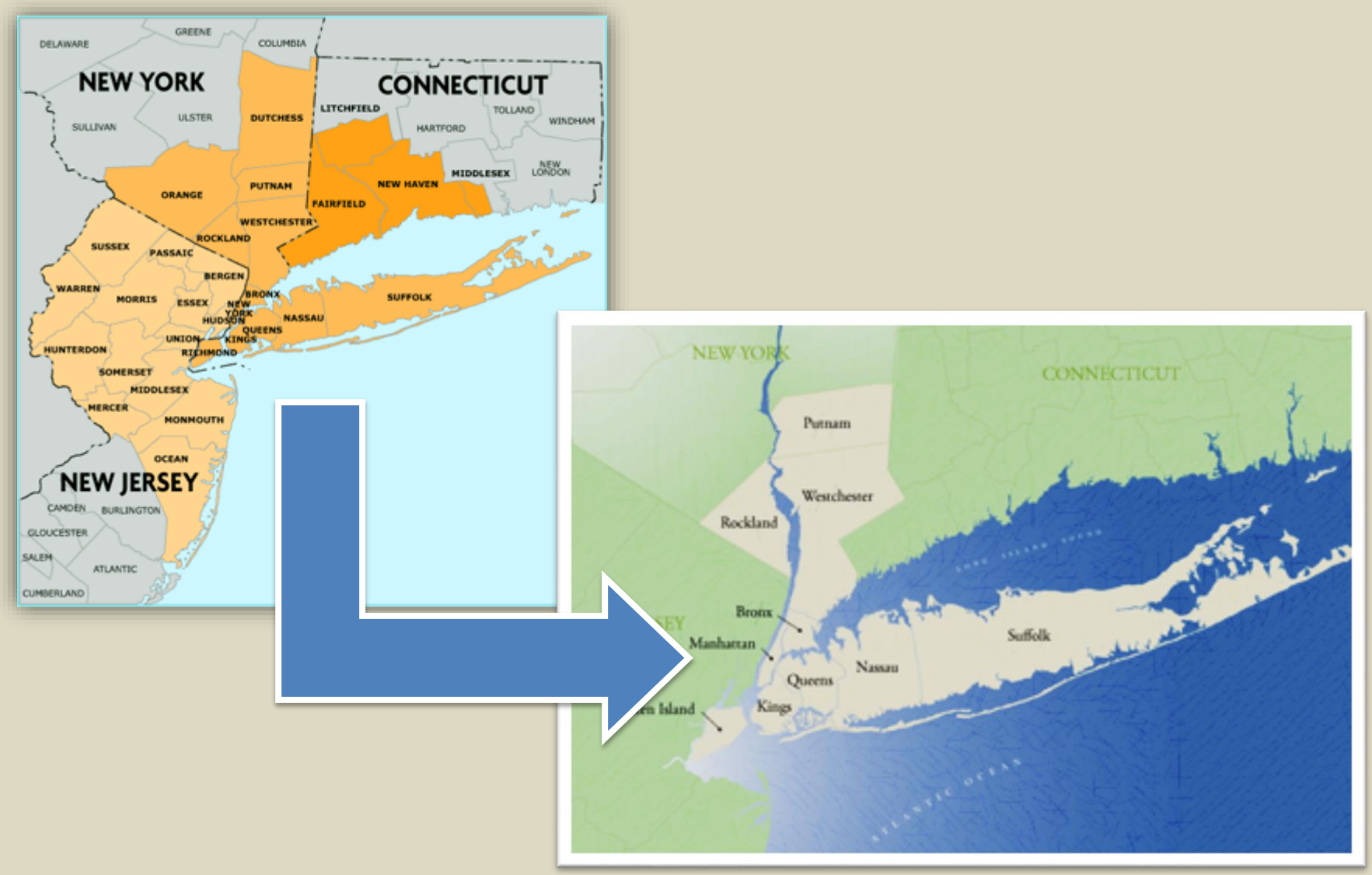
NYMTC's New Regional Freight Plan – An Opportunity for Clean Freight Corridors?

NYMTC
NEW YORK METROPOLITAN TRANSPORTATION COUNCIL

Northeast Clean Freight Corridors Webinar #4 - Defining Clean Corridors

May 25, 2016

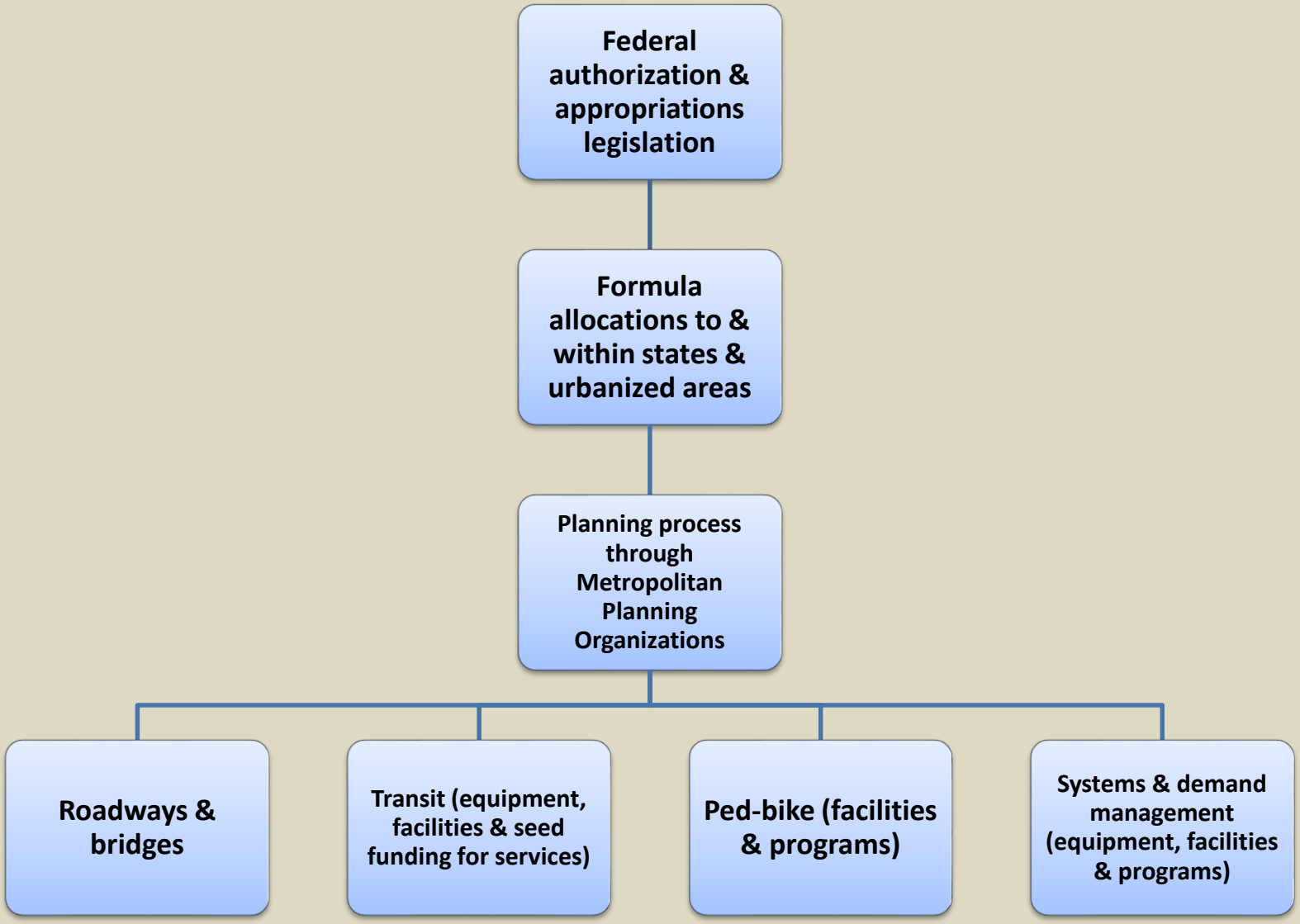
NYMTC's Planning Area



NYMTC's Members

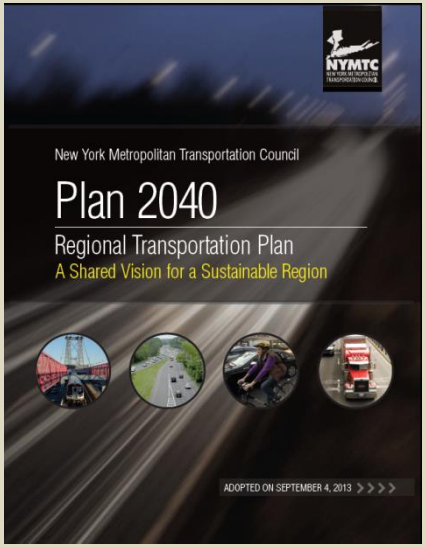
Advisory members: New Jersey Transit, North Jersey Transportation Planning Authority, Federal Transit Administration, Federal Highway Administration, U.S. Environmental Protection Agency, NYS Department of Environmental Conservation

Major Elements of Federal Transportation Funding



Metropolitan Transportation Planning Process

Developing the Next Regional Transportation Plan



Why the update?

- Federal requirement for the RTP to be updated every 4 years in our region **(due 9/30/17)**
- New information on population & employment growth – changing demands & trends
- Updated transportation funding sources
- New information on costs & other financial inputs
- Revised regional priorities as determined by NYMTC's Principals
- Technological developments & drivers of change
- New air quality requirements
- New federal requirements & priorities

Plan 2045

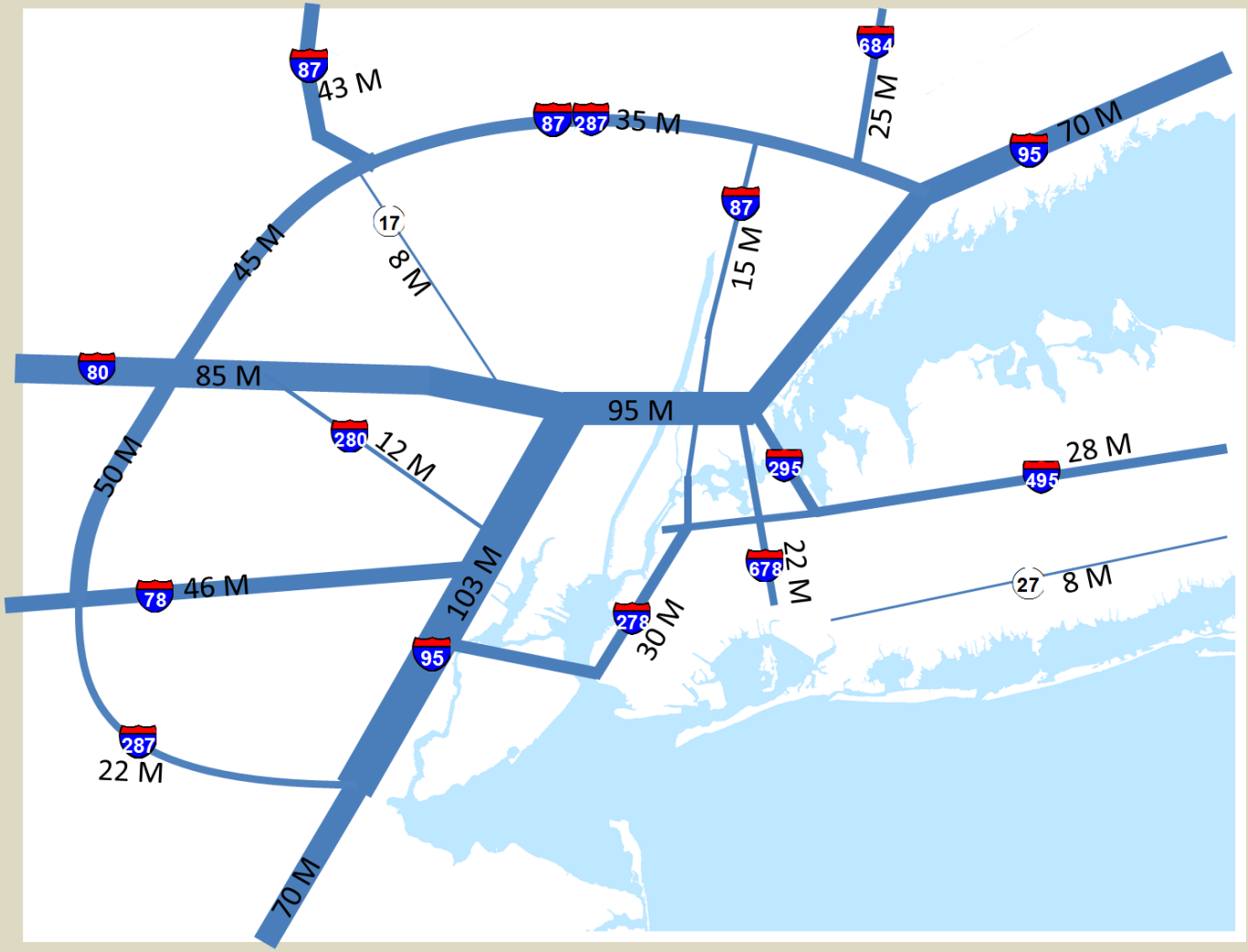
The New Freight Plan

- The next long-range Regional Transportation Plan must be adopted before October 1, 2017
- It will contain a redeveloped Regional Freight Plan as a specific element
  - Development of the new Regional Freight Plan is underway
  - Clean Freight Corridors have been proposed for inclusion in the new Freight Plan
  - **RELATED DEVELOPMENT**: FAST Act Section 1413 – Designation of Alternative Fuels Corridors

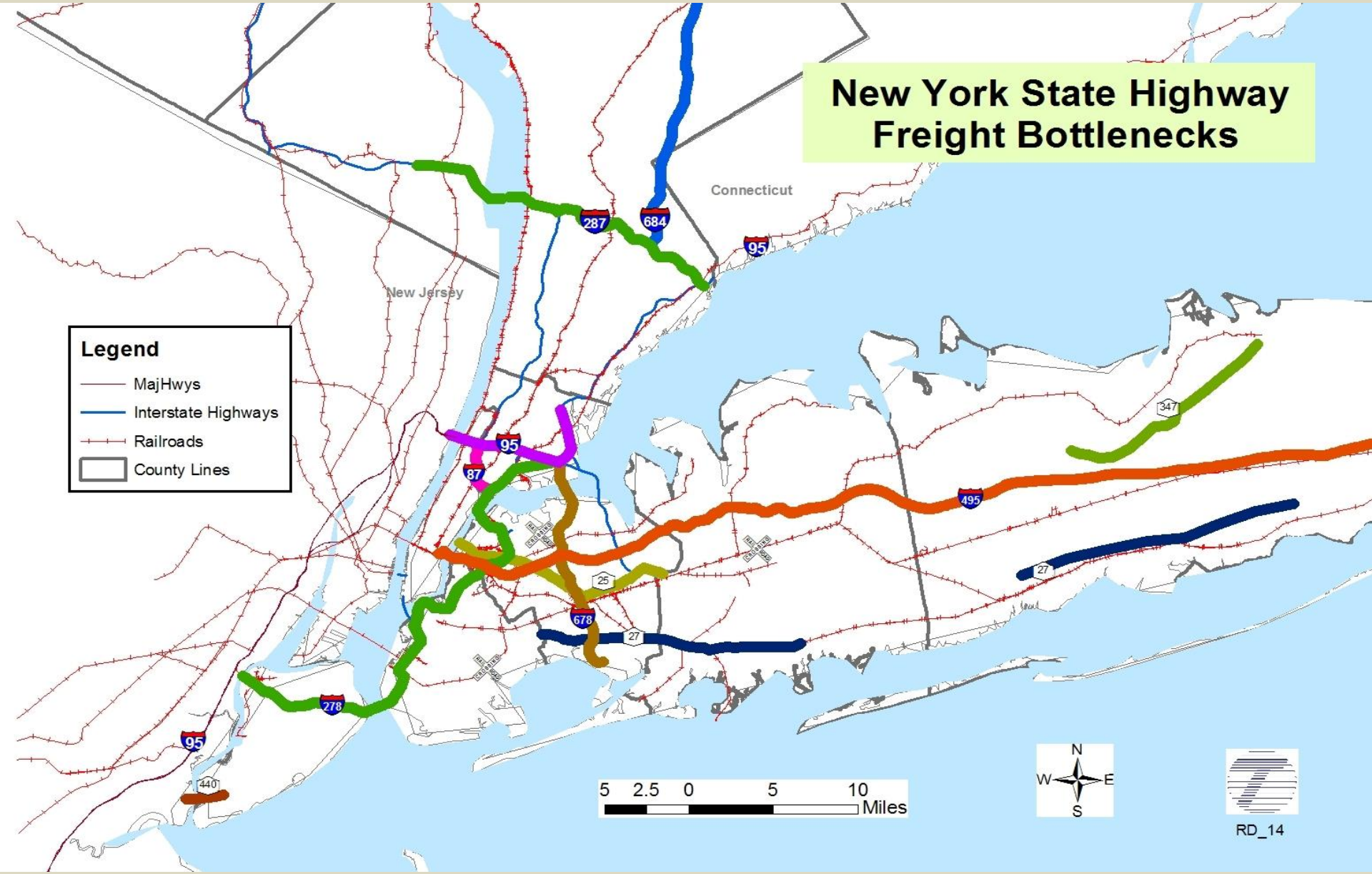
The New Freight Plan

PRELIMINARY TARGETING OF CORRIDORS

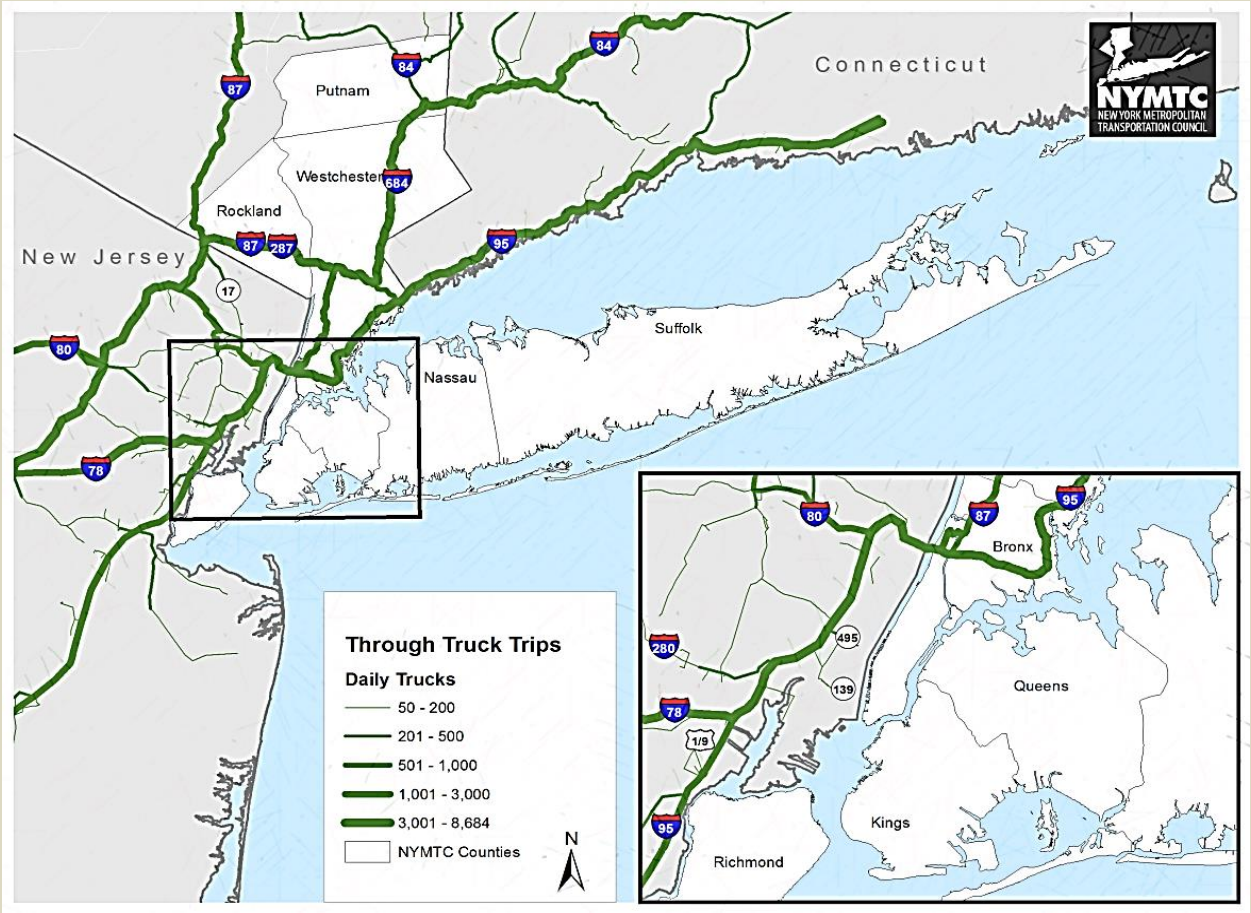
Freight Highways by Annual Tonnage



Freight Challenges

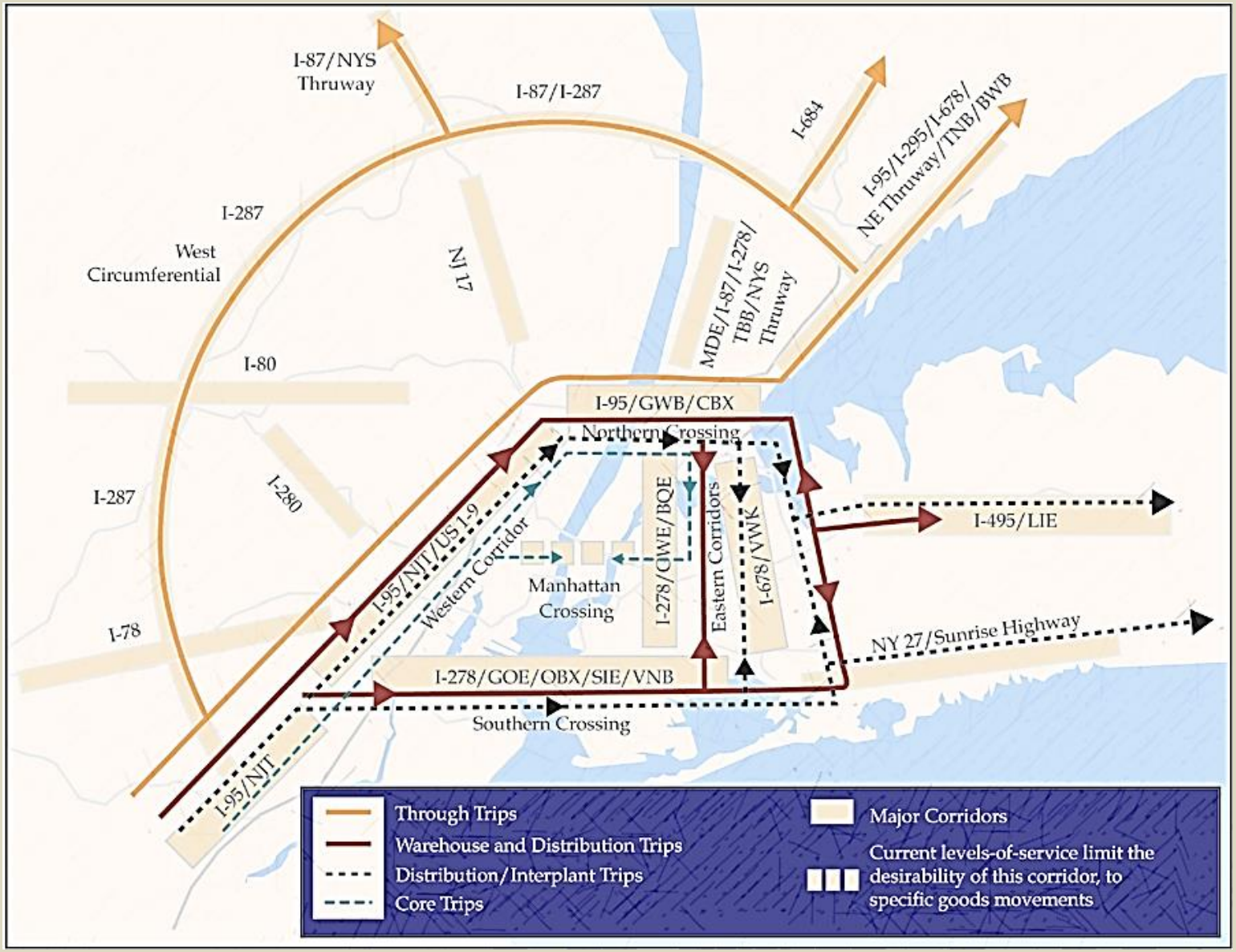


Through Truck Trips -Top Origin/Destination Pairs



South Atlantic	Massachusetts	550,322
Northern New England	Northern New Jersey	353,727
Northern New Jersey	Connecticut	327,563

Key Roadway Infrastructure



Further Information

- **Plan 2045**
  - www.nymtc-rtp.org
  - www.nymtc.mysidewalk.com
- **Freight Planning**
  - http://www.nymtc.org/Regional-Planning-Activities/Freight-Planning
- **Contacts**
  - Gerry Bogacz, Planning Director Gerry.Bogacz@dot.ny.gov
  - Geoff Rick, Freight Planning Coordinator Geoffrey.Rick@dot.ny.gov

CALIFORNIA SUSTAINABLE FREIGHT ACTION PLAN

Northeast Clean Freight Corridors Workgroup Webinar

May 26, 2016

California's Freight Transport System

Modes:

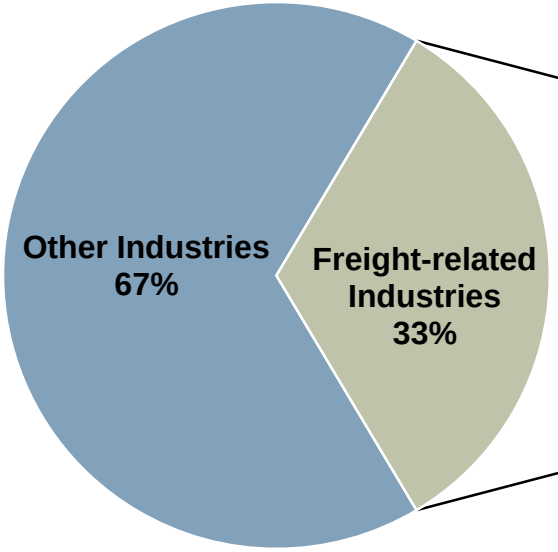
Facilities:

- Seaports
- Airports
- Rail yards & lines
- Distribution centers
- Warehouses
- High traffic roads
- Border crossings

1/3 of California's Jobs and Economy

California Industry Employment Composition

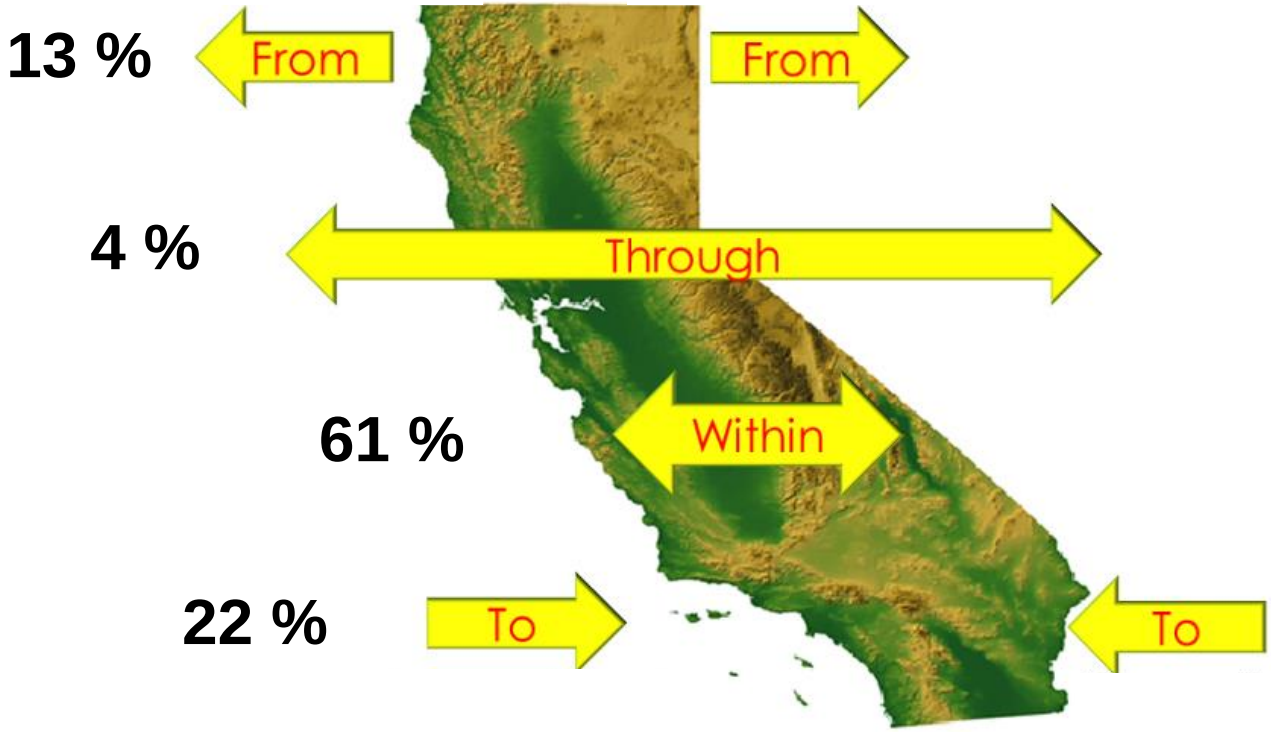
Total Employment (2014): 16 Million



Retail Trade	10%
Manufacturing	8%
Wholesale Trade	5%
Mining, Logging, & Construction	4%
Transportation & Warehousing	3%
Farm	3%
Utilities	0.4%

Source: EDD, Labor Market Information Division, 2014

2/3 of Freight Transport Within California



Source: Freight Analysis Framework Data by U.S. Department of Transportation, 2015

Under Continuous Pressure to Evolve

- 25 percent increase in volume by 2025
- Competition and cost pressures
- Demands of e-commerce
- System capacity, safety, and security
- More protective toxics and air quality standards
- Increased vulnerability of freight facilities to climate change impacts

Progress Will Require Partnerships Across…

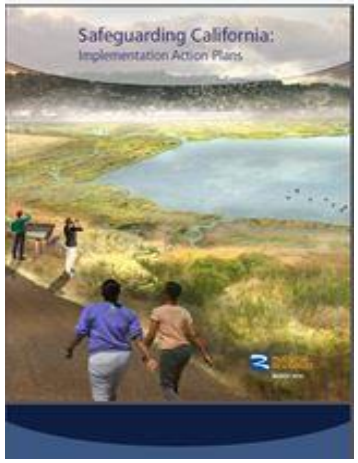
- **Multiple sectors, disciplines, and organizations**
- **State government**
- **Industry**
- **Federal, regional, and local agencies**
- **Environmental and community partners**
- **International bodies**

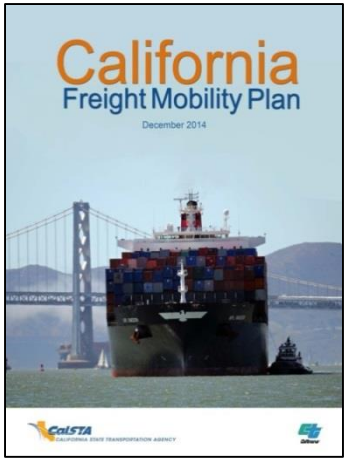
Governor's Executive Order B-32-15

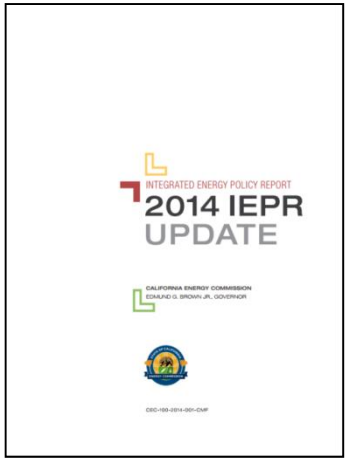
Multi-decade, iterative process needed to transform California's freight system. State agencies, in consultation with stakeholders, to develop plan by July 2016 to:

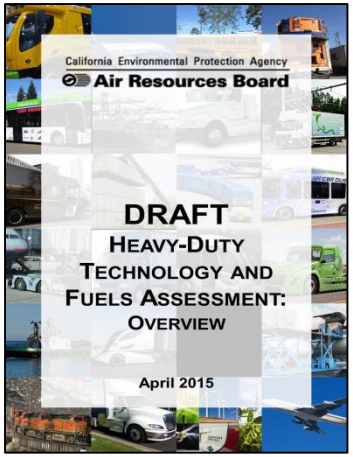
- **Improve freight efficiency**
- **Transition to zero emission technologies**
- **Increase competitiveness**

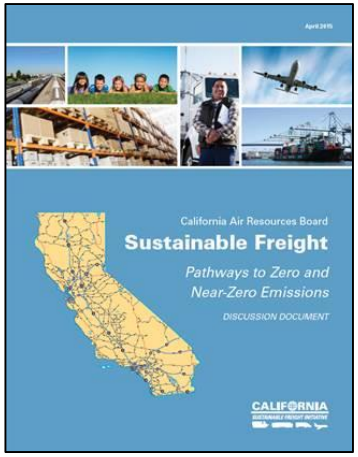
Other Recent State Plans

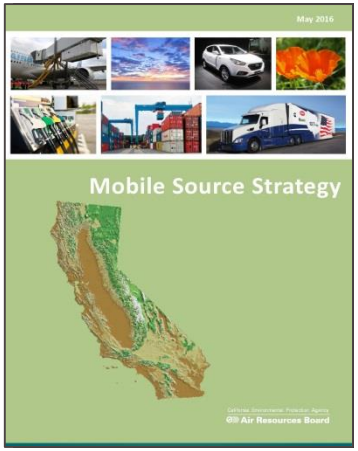


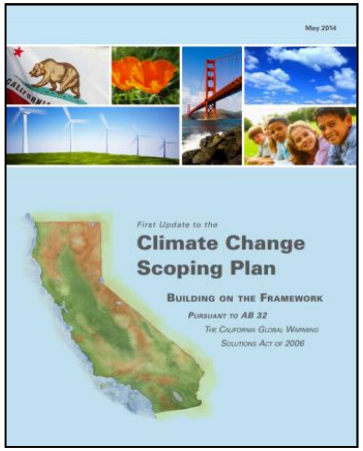


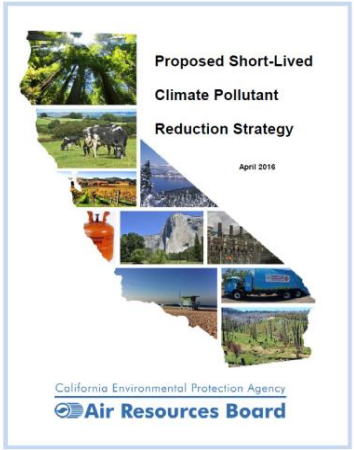




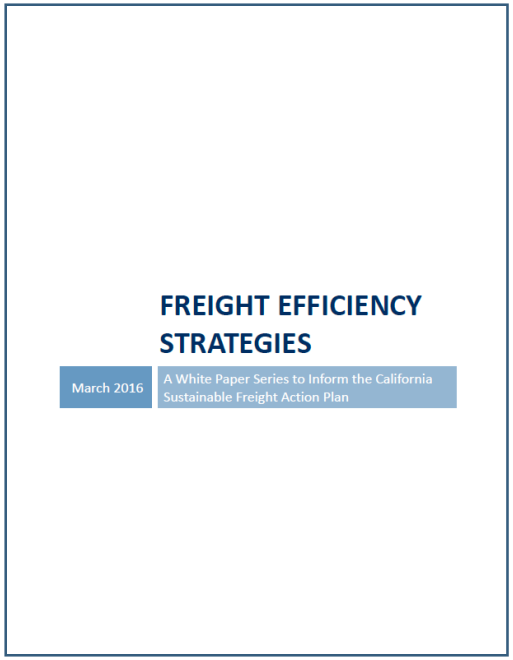








Freight Efficiency Working Group

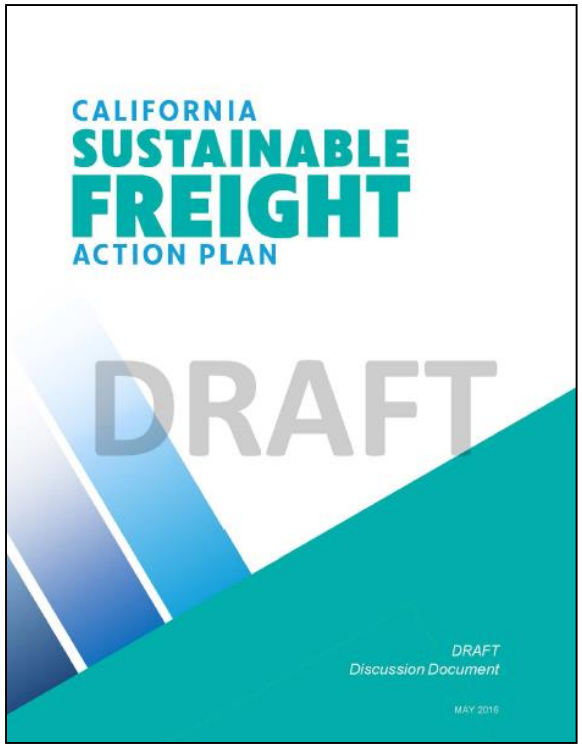


- **Participants:** Freight industry, academics, advocates, and government
- **Developed a series of white papers:**
  - Funding for Freight Infrastructure and Clean Equipment
  - Strategies to Maximize Asset Utilization
  - Planning and Policy
  - Operational Modernization at Distribution Nodes
  - Information Technology

Framework of Draft Action Plan

Released on May 3, includes:

- **2050 Freight System Vision**
- **Guiding Principles**
- **2030 Statewide Targets**
- **Freight Funding Approach**
- **State Agency Actions**
- **Pilot Projects**
- **Discussion Concepts**



2050 Freight System Vision

Utilize a partnership of federal, State, regional, local, and industry stakeholders to move freight in California on a modern, safe, integrated, and resilient system that continues to support California's economy and livability.

Transporting freight reliably and efficiently by zero emission equipment everywhere feasible, and near-zero emission equipment powered by clean low-carbon renewable fuels everywhere else.

Guiding Principles

"In addition to statutory requirements, the Guiding Principles characterize priorities for future investments of freight funding in California."

- **Regional and Local Support**
- **Economy**
- **Safety**
- **Community Impacts**
- **Maintenance**
- **Reliability**
- **Efficiency**
- **Environment**
- **Resiliency**
- **Land Use**

2030 Statewide Targets

- **System Efficiency:** Improve 25 percent by 2030
- **Technology:** Deploy over 100,000 zero emission vehicles/equipment and maximize near-zero by 2030
- **Economy:** Foster future economic growth within the freight and goods movement industry

Freight Funding Approach

- **Potential Freight Funding**
  - Fixing America's Surface Transportation (FAST) Act
  - Governor Brown's Fiscal Year 2016-2017 Budget Proposal

- **Approach to Ongoing Freight Investments**
  - Trade Corridor Improvement Fund/Goods Movement Emission Reduction Program – Phase II
  - Further explore matching grants, financing assistance, and bulk purchasing power

State Agency Actions

1. **Work with legislature on a freight transport funding package**
2. **Work with legislature on distribution of federal FAST Act funds**
3. **Plan and invest in infrastructure to modernize freight corridors**
4. **Accelerate use of advanced technologies and renewable fuels**

State Agency Actions (cont'd)

5. **Establish a sustainable freight think tank**
6. **Develop strategies, tools, and data that consider commercial viability and promote competitiveness**
7. **Continue work with the freight efficiency development group**
8. **Implement steps to meet existing and future workforce needs**
9. **Identify process improvements to expedite delivery of projects**

Implementation Steps for Actions

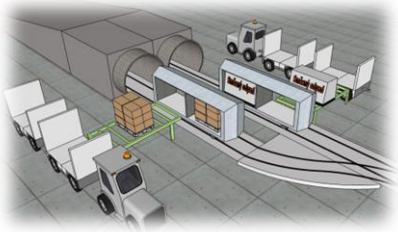
- **Transportation and Fueling Infrastructure**
  - Highway, Rail, and Waterway Network Planning and Development
  - Charging and Hydrogen Fueling Network Planning and Incentives
  - Freight Handbook
- **Advanced Technologies**
  - Vehicle and Equipment Regulatory and Incentive Concepts
  - Renewable Fuels Concepts
- **Competitiveness**
  - Cost and Benefit Data, Tools, and Metrics Development
- **System Efficiency**
  - Freight Truck Platooning, Route Designation, and Signal Priority
  - Intelligent Transportation Systems Enhancements
  - Off-Hour Delivery/Pick Up Strategy
- **Workforce Development**
  - Upskilling Programs and Job Training Models

Pilot Projects

- **Dairy Biogas for Freight Vehicles**
  San Joaquin Valley
- **Advanced Technology for Truck Corridors**
  Southern California
- **Advanced Technology Corridors at Border Ports of Entry**
  California-Mexico Border

Discussion Concepts

- **Inland marine corridors**
- **Non-traditional transport methodologies**
- **Packaging optimization**
- **Supply chain consolidation in the agricultural industry**
- **System efficiency strategies**
- **Transportation projects**
  - Interstate 710 Corridor
  - State Route 11 Otay Mesa East Port of Entry



Action Plan Timeline

May 3, 2016	**Draft Action Plan released for public comment**
May-June 2016	Stakeholder meetings on draft Action Plan
July 6, 2016	Public comment period ends
July 2016	Agency Secretaries transmit final Action Plan to Governor

View the full draft Action Plan at:

http://www.casustainablefreight.org/

Implementation of FAST Act – Section 1413

Designation of Alternative Fuel Corridors

NE Clean Freight Corridors Workgroup Webinar

May 26, 2016

U.S. Department of Transportation
Federal Highway Administration

Implementation of FAST Act – Section 1413 Requirements

- The Secretary is required to designate corridors to improve mobility of passenger and commercial vehicles that employ electric, hydrogen fuel cell, propane, and natural gas fueling technologies across the U.S. within one year of enactment (Dec. 2016):
  - ✓ Identify near and long-term need for infrastructure;
  - ✓ At strategic locations along major national highways;
- Solicit nominations from state and local officials;
- Incorporate existing infrastructure (demand and location)

Implementation of FAST Act – Section 1413 Requirements (Continued)

- Stakeholder involvement (on a voluntary basis);
- Report that identifies infrastructure and standardization needs for the above fuels within one year of enactment (Dec. 2016);
- Report must also establish aspirational goals of achieving strategic deployment of infrastructure in corridors by the end of fiscal year 2020; and,
- Re-designation of corridors and new report every 5 years.

Implementation of FAST Act – Section 1413 Process

- Hold two national webinars to solicit stakeholder feedback (early May)
- Develop selection criteria and solicitation based on stakeholder feedback (late May)
- Disseminate solicitation via 30 day FR notice (June)
- Designation announcements (late August/early Sept.)
- Follow-up FR notice announcing designations (late Sept.)
- Technical assistance follow-up (beginning in Sept. 2016)

Discussion Topic #1

Defining alternative fuel corridors

Ex: linearly (i.e. I-95/US1) or as a network of roads/highways (i.e. port access points/intermodal connectors)

- Both linear and non-linear preferred
  - Projected demand for alternative fuels/existing facilities
  - Highly traveled route
  - Linear more important for freight/network more important for light-duty
  - Begin and end with metropolitan areas
  - Should result in a national network
  - Should connect regions
  - Proximity to disadvantaged communities
  - International commerce/national security considerations

Discussion Topic #2

Alternative fuel corridors that are defined *linearly*

Ex: by a certain mileage figure or by the full length of a facility

- Determined by logical end points (i.e. cities)
- Defined by two points of interest
- Do not provide minimum/maximum length (let proposers decide)
- Full length (start to finish) with partners throughout

Discussion Topic #3

Alternative fuel corridors that are defined *as a network*

Ex: city; region/multi-region; state/multi-state; megaregion

- Multi-state corridors preferred
- Connections between modes
- Clusters/communities

* Megaregions are a group of geographic locations and/or areas that are combined because of similar characteristics and mutual interest .Since our roadway system crosses many jurisdictional boundaries, transportation is inherently Megaregional.

Discussion Topic #4

Major national highway definition

Examples:

- ***Interstate*** *(i.e. I-5, I-10, I-95): Are the highest classification of Arterials and were designed and constructed with mobility and long-distance travel in mind.*
- ***National Highway System*** *(Interstate + Other Principal Arterial = ~226,000 miles). Other principal arterials serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas.*
  - *Must enable travel between metro areas*
  - *Must consider rural areas*
- ***Minor Arterial****: Provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system.*
- ***Collector*** *(major and minor): Serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network.*
- ***Local roads****: Account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel.*

Discussion Topic #5

Number of corridors and fuels per corridor

Ex: single fuel or multiple fuels

- Multiple fuels preferred (recognizing the LDV & HDV differences)
- Must consider characteristics of various fuels

Discussion Topic #6

Defining criteria for designating corridors

Ex: number of facilities currently located along corridor, potential greenhouse gas and criteria emissions reductions, probability of successfully developing new facilities

- Connectivity to surrounding corridors
- AFV usage
- Highest volume of traffic
- Existing infrastructure and commitment to “build-out”
- Active/committed engagement by key stakeholders
- Total population

Discussion Topic #7

Possible results and outcomes of designations

Ex: marketing tourism, meeting air quality standards, demonstration of environmental stewardship, etc.

- Help achieve ZEV mandates
- Increased tourism
- Air quality
- Economic growth
- Encourage AFV ownership

Discussion Topic #8

Other issues/topics not considered

- Need for comprehensive and cohesive signage
- Exclusion of biofuels
- Inclusion of truck stop electrification
- Leverage AFDC/Clean Cities resources
- Tie to national/state freight plans & state resiliency/readiness plans
- Coordinate with truck parking locations

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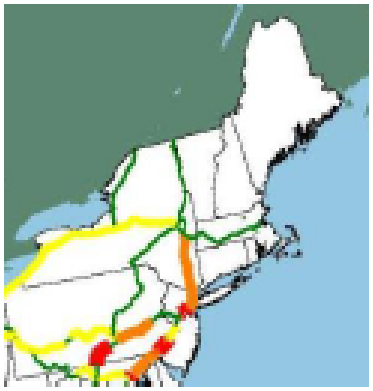
Discussion

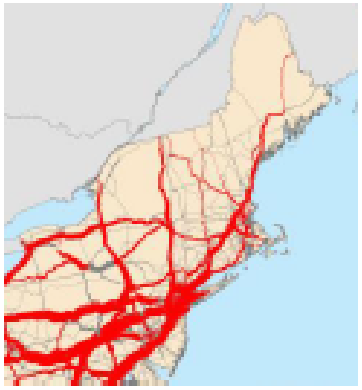
Next WG Call: Topic #5 Designating Clean Corridors
June 23, 2016 at 2 p.m. EDT

Defining Clean Corridors

What do we mean by “corridor”?

- Heavy freight flow
- Many users travel entire length
- Any mode: highway, rail, marine
- Intermodal nodes
- Feeder routes



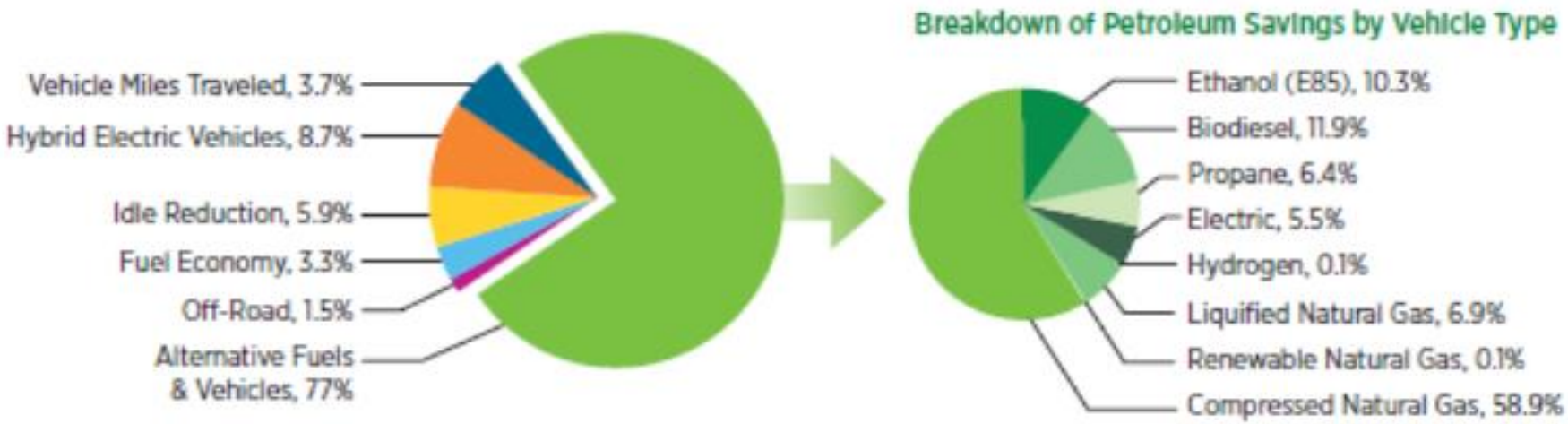


Defining Clean Corridors

What do we mean by “clean”?

- **Alt fuel** is available, and used by fleets.
- **Idling reduction** is supported, and happens.
- **Cleaner & more fuel-efficient engines** are more widely used.
- **Fewer engine-on hours** are required per trip/move.
- **Clean & more fuel-efficient** modes are chosen.

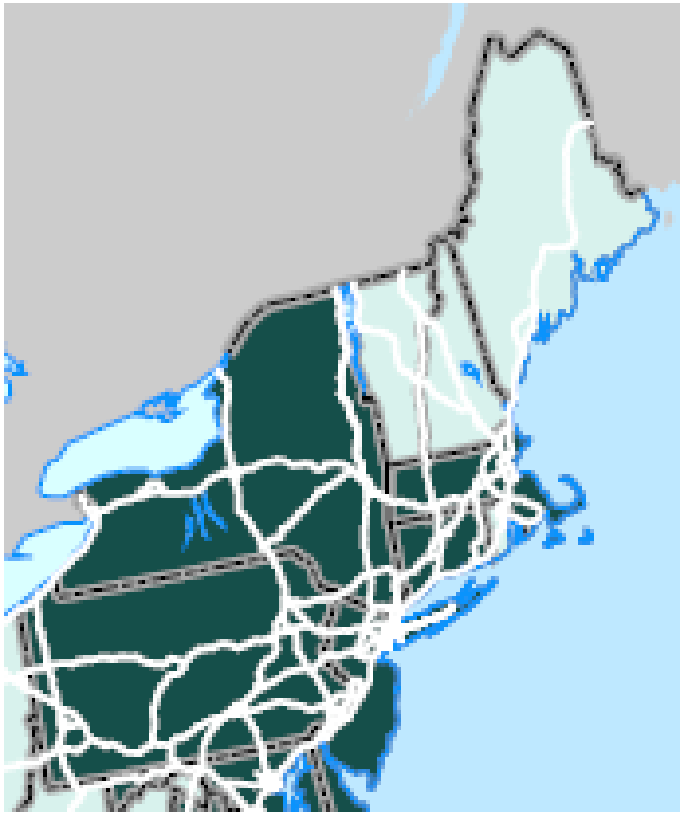
Clean Cities 2014 Petroleum Savings by Technology Type



Defining Clean Corridors

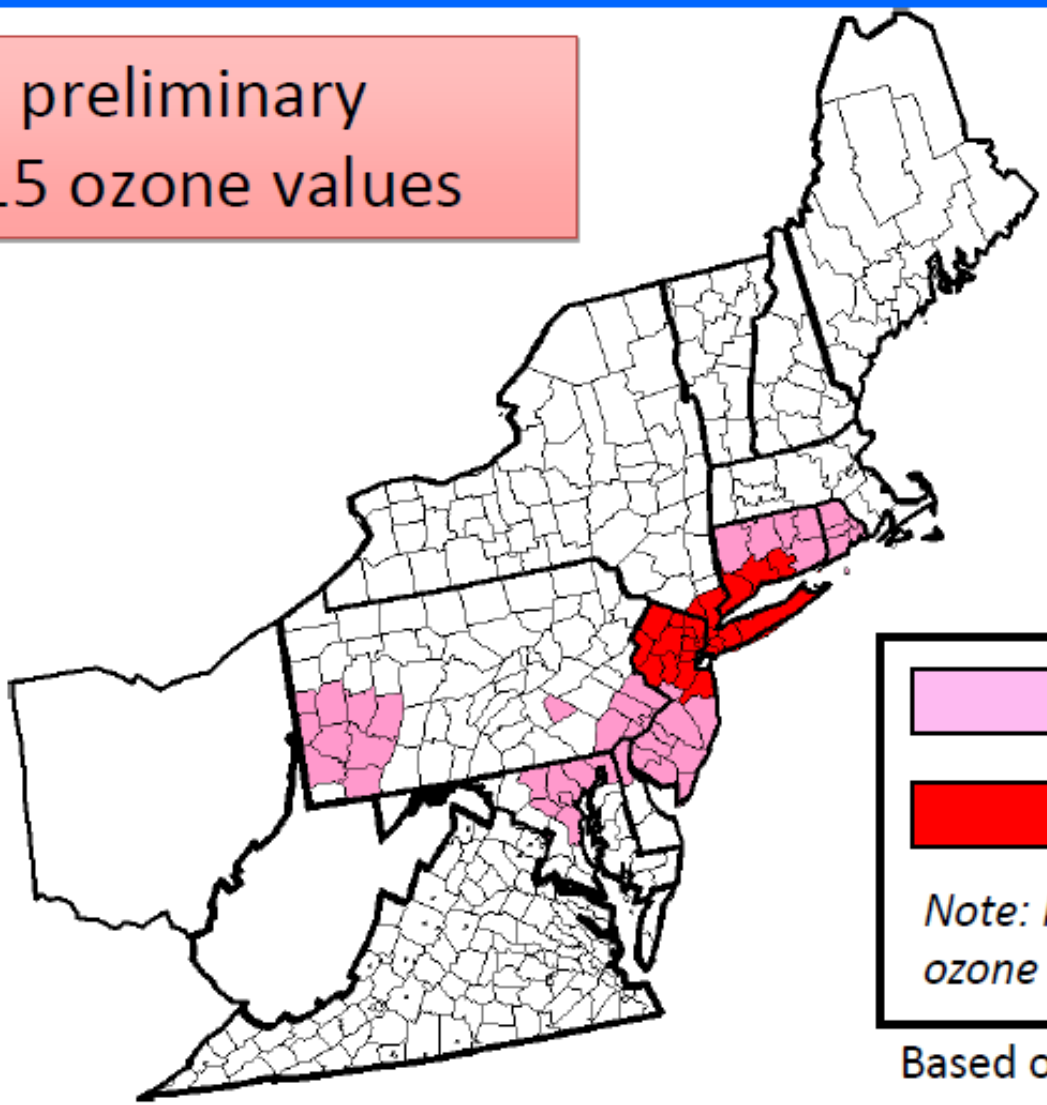
Putting it together: criteria for “clean corridors”

- Low-performing.
- Where refueling and layovers are likely to occur.
- Where some alt fuel or idle reduction infrastructure exists.
- In heavily-populated areas.
- Corridors ripe for mode shift.



Potential Nonattainment – 2015 70ppb NAAQS

Based on preliminary 2013-2015 ozone values



Marginal

Moderate

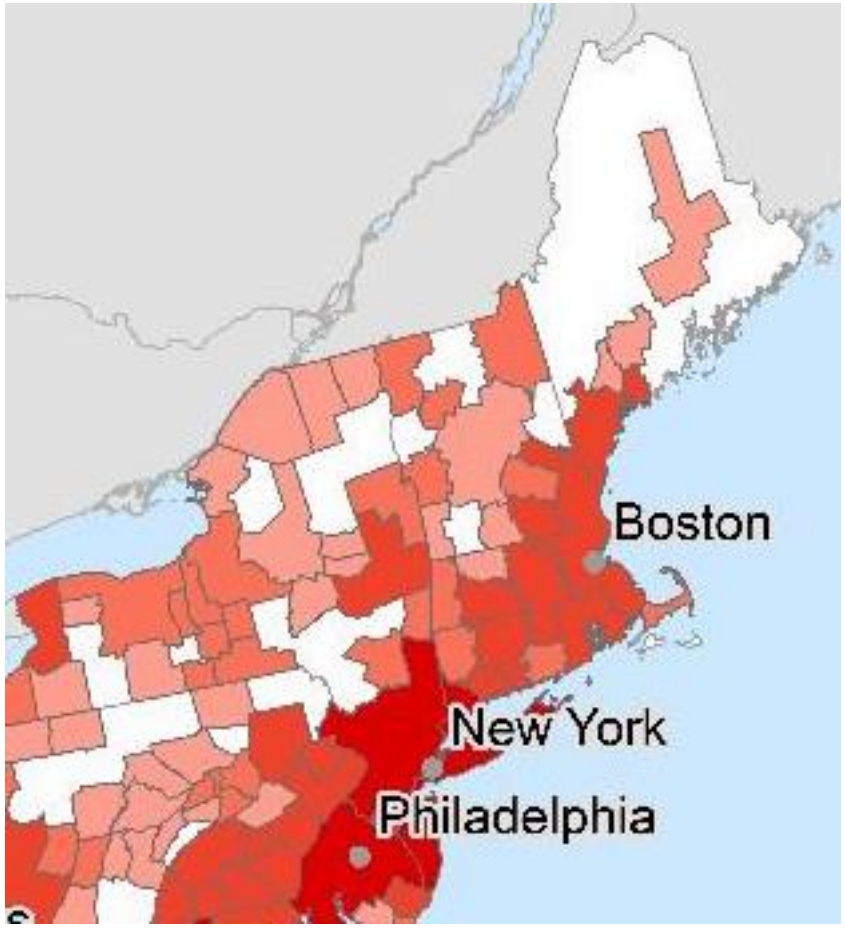
Note: Not all counties have ozone monitoring

Based on CBSA Boundaries in most cases

Defining Clean Corridors

Why try?

- Influence corridor **designations**.
- Improve cross-state **planning**.
- Focus agency **resources**.
- **Incentivize** industry.
- Improve freight **productivity**.
- Reduce **emissions**.



YOUR TURN

NORTHEAST
DIESEL COLLABORATIVE
FOR SUSTAINABLE TRANSPORTATION, GOODS MOVEMENT AND CONSTRUCTION

Discussion Notes – Page 1

- Presentation and slides will be posted on northeastdiesel.org.
- Technology Targets for CA Sustainable Freight Action Plan – multiple techs/across modes
- Funding available under FAST Act. – Section 1413 is more like a label, could be a factor for eligibility criteria for future grants
- We see it is an opportunity to prioritize projects/funds to those corridors
- Interstate rules for FAST Act – 1413 (need to look into).
- How does CA plan to coordinate with Oregon and Washington? Team is open to working with the states but focusing on getting coordinated first.
- Caltrans, Chris Schmidt – interstate coalitions are working together toward these issues.
- Does Tech. Assistance under FAST Act 1413 support coordination b/w states.
- Have the ports been involved regarding clean corridor initiatives? Yes – we have engaged ports from NEDC Ports WG.
- Best practices from CA Sustainable Freight Action Plan – enormous learning process, different perspectives, diverse stakeholder groups, community engagement, and how to balance. Trying to find unified vision on sustainable freight. Transportation planning guidelines, how do we incorporate sustainable practices/strategies, how does the freight action plan address all emission/freight efficiency goals.

Discussion Notes – Page 2

- CA has a state mandated freight advisory committee – the group and relationships and regular engagement have been extremely valuable. Effort has brought together diverse partners in one room to discuss strategies including academia. CA using academic research to support policy development.
- Who can submit a nomination application under the FAST Act Section #1413? Any state agency(DEC, DOT, etc./MPO)
- How is CA looking at borders? – CA Plan does look at cross border freight movement. Safety and security issues are of concern and priority. Need to be increasingly sustainable crossing borders.
- In the NE we should engage Canada.
- What grants fund TSE for CA? DE having difficulty getting TSE back and operational. DERA has supported TSE projects.
- California Energy Commission is bringing clean techs to commercialization supporting clean transportation in the state in CA.
- CEC has significant funding for EVSE and have looked for opportunities to promote TSE. Received applications supporting idle-reduction strategies and technologies at trucks stops or waiting at port marine terminals.

Discussion Notes – Page 3

- What clean corridor efforts are being performed in Canada/Mexico? (CA) There is some interest from Mexico with short haul trips- daily ongoing trips – interest of looking at all-electric capabilities.
- NE WG to coordinate with other regions – I-95 & 1-80
- Will there be a need to prepare a MOU for a multi-state nomination for clean corridors?
- What partnership definition to submit a nomination application? Who are the authorized people to submit? Go work with state agencies one might have relationships with.
- The Northeast Diesel Collaborative (NEDC) would like to support a regional application for clean corridor designation in partnership with the NE Clean Freight Corridors Workgroup. NEDC would need to find a state agency to submit the application through.
- Workgroup Session #7 (June 23rd at 2 p.m.) will focus on building support/consensus on a regional application for Section 1413.

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