Regional Models of Cooperation

Congestion Management

Efficiency through technology and collaboration

innovation ingenuity imagination invention
Every Day Counts

U.S. Department of Transportation
Federal Transit Administration

U.S. Department of Transportation
Federal Highway Administration

Purpose & Background

Promote cooperation and coordination across MPO and State boundaries to develop a regional approach to transportation planning

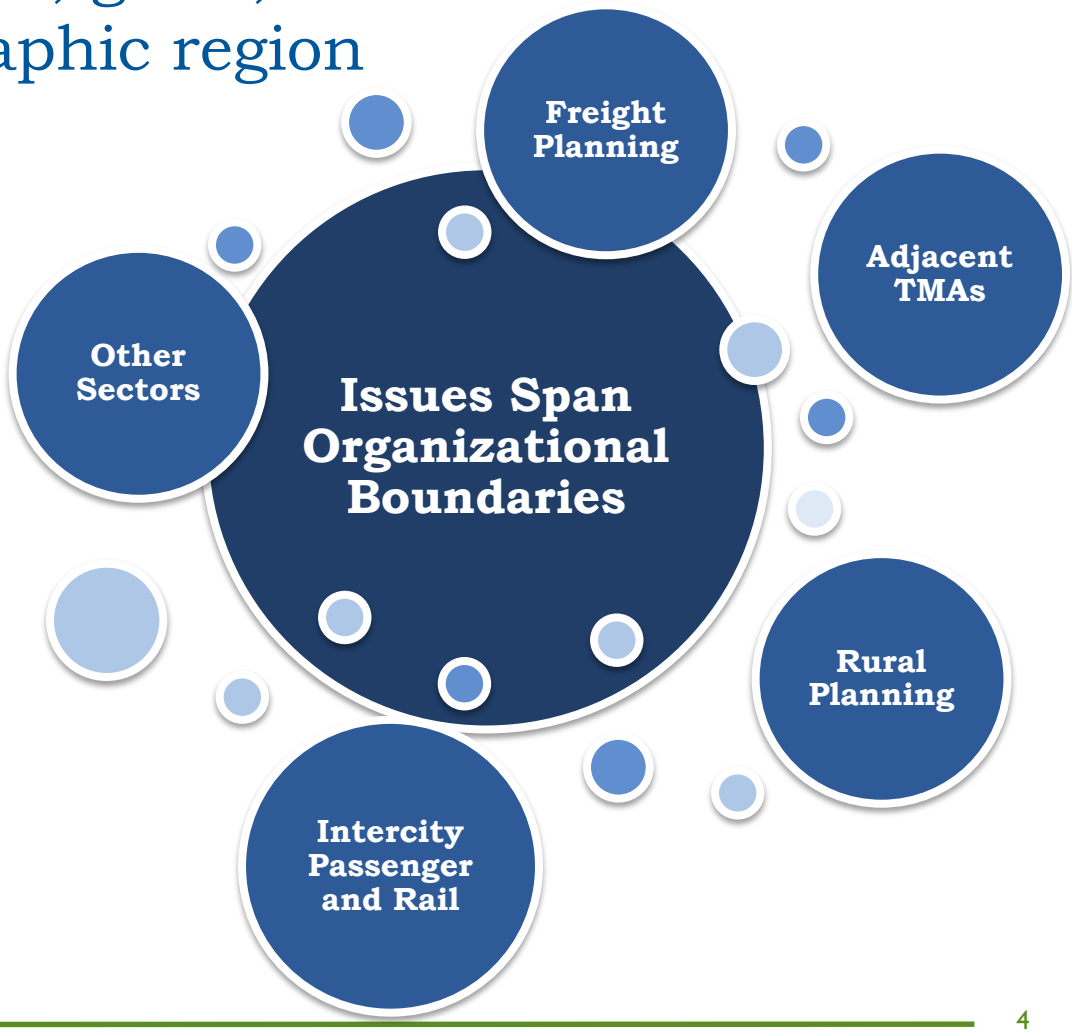
Supported by:

- Planning Emphasis Area (PEA) Fiscal Year 2016
- Every Day Counts (EDC-3)

Why is Enhanced Coordination Needed?

Why is Enhanced Coordination Needed?

Recognize mutual needs, goals, and objectives of the geographic region as a whole



Regional Models of Cooperation: Implementation Activities

1. Webinar Series
2. Peer Exchange Workshops
3. Handbook

Regional Models of Cooperation Webinar Series

1. Regional Models of Cooperation Overview (Jan 27, 2015)
2. Air Quality Planning (August 25, 2015)
3. Regional Transit Planning (October 16, 2015)
4. Safety Planning (December 10, 2015)
5. **Congestion Management (February 11, 2016)**
6. Data Sharing, Systems, and Tools (April 14, 2016)
7. Joint Planning Products (June 9, 2016)
8. New Technologies and Business Models (August 11, 2016)
9. Multimodal Planning Cooperation Across Jurisdictions (October 13, 2016)
10. Freight Planning (December 8, 2016)

Today's Speakers

- **Wayne Berman**
  FHWA Office of Transportation Management

- **Joe Bovenzi**
  Genesee Transportation Council

- **Zoe Neaderland**
  Office of Transportation Safety & Congestion Management, DVRPC

- **Alan Lehto**
  Planning & Policy, TriMet

Collaboration and Coordination: An Essential Element of Planning for Operations

Wayne Berman
FHWA, Office of Operation

Context for Planning for Operations

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

Our planning process tends to focus most on planning roads, bridges, transit and bicycle/pedestrian infrastructure…

Yet, how well the transportation system is managed and operated on a day-to-day basis is a critical issue the public notices:

- Major traffic incidents
- Severe weather conditions
- Construction blocking lanes
- A special event tying up traffic

What is Transportation Systems Management & Operations?

U.S. Department of Transportation
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Federal Transit Administration

- Maximizing the performance of the transportation system – roads, bridges, and rails – without adding new capital infrastructure.
- Utilizing innovative approaches to reduce delay and improve reliability:
  - Technology to monitor, assess, and adapt to changing travel conditions.
  - Real-time information sharing.
  - Collaboration and coordination across jurisdictional boundaries.
- Is Planned For
  - Through Regional Collaboration and Coordination

Management & Operations Involves…

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

Managing travel demand – optimizing when (time of day), how (ridesharing, transit, bicycling, walking), and where people and goods travel (providing information on preferred routes).

Managing traffic and transit operations – improving reliability and reducing unnecessary delays.

Strategy Examples

- Traffic incident management
- Traffic signal coordination
- Transit signal priority
- Freight management
- Work zone management
- Special event management
- Congestion pricing
- Road weather management
- Managed lanes
- Ridesharing programs
- Parking management
- Traveler information

How to Plan for Operations

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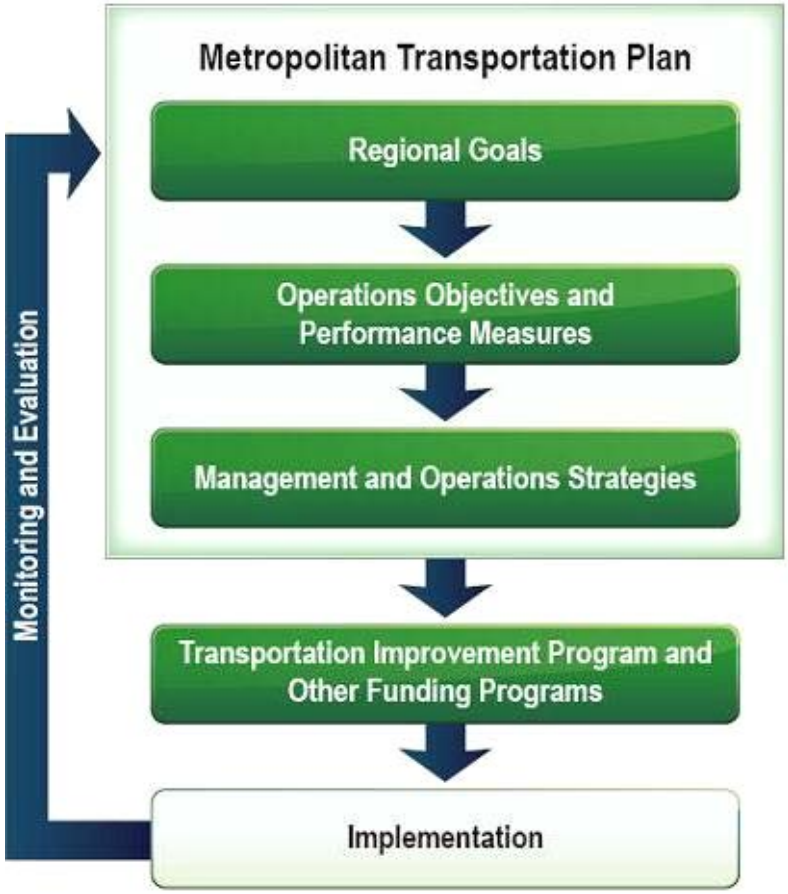
Federal Highway Administration
Federal Transit Administration

- Move from a “project based” focus to an objectives-driven “outcomes-based” approach.
- Coordinate across jurisdictional boundaries to integrate systems, modes, and technology solutions.
- Focus on maximizing existing systems and managing demand before capacity solutions.



Realizing the Tangible Benefits of Cooperation: "What's in it for me?"

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Federal Highway Administration
Federal Transit Administration

- A tangible benefit is an outcome or effect from a collaborative activity that supports an agency goal or objective.

- Agencies benefit in tangible ways from a range of collaborative activities in support of Planning for Operations (information sharing to joint operations)

Tangible benefits of Cooperation Mean:

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

- ***Following the Money***: collaborative pursuit of funding
- ***Getting Smart****:* sharing expertise and joint learning
- ***Speaking With One Voice****:* coordinating communications and giving a consistent message
- ***Being On the Same Page***: developing common procedures, protocols, and plans
- ***Measuring Up***: jointly measuring performance

Tangible benefits of Cooperation Mean:

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

- ***You Ought to Know:*** sharing transportation information
- ***Can You Hear Me Now?:*** developing tools for efficient communications
- ***Sharing the Wealth***: sharing resources
- ***Building Economies of Scale***: consolidating services
- ***All Together Now***: performing joint operations

Case Examples: Follow the Money

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

- Agencies that collaborate on funding applications enjoy increased access to outside funding.
  - Denver's Traffic Signal System Improvement Program (TSSIP) – participants share $3.9M
  - Vancouver Area Smart Trek (VAST) "bundle" projects for joint application

"By forming together, we were able to carve out a pool of funding to be spent on traffic signal activities that wouldn't otherwise compete well against construction projects such as intersection improvements."

—Local traffic engineer participating in Denver TSSIP

Case Examples: Getting Smart

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

- Agencies share knowledge to avoid “re-inventing the wheel” – saving staff time and money
  - NITTEC Incident Management Subcommittee members pool expertise to develop training program
  - Maryland SHA assisted Montgomery County in training arterial patrol staff and provided specs for vehicles
  - AZTech agencies use partners for advice on developing TMCs and purchasing wireless technology

Case Examples You Ought To Know

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

- Agencies that share information in real-time can better inform travelers and prepare their own facilities.
  - High Plains Corridor Coalition states share information on road conditions to provide travelers early warning

Case Examples: Sharing the Wealth

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

- By sharing assets, agencies save money and boost their operations capabilities.
  - Vancouver VAST agencies share excess fiber assets as part of an inter-local agreement
  - High Plains Corridor Coalition states sharing cost of developing web-based traveler information network through Transportation Pooled Fund Study

Case Examples: Building Economies of Scale

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

- Agencies benefit by consolidating services through reduced operating costs and enhanced services.
  - NITTEC provides member agencies with 24/7 traffic operations center
  - AZTech partners benefit from a regional emergency response team operated by Maricopa County DOT

U.S. DOT Planning for Operations Resources: The Collaborative Foundation

U.S. Department of Transportation
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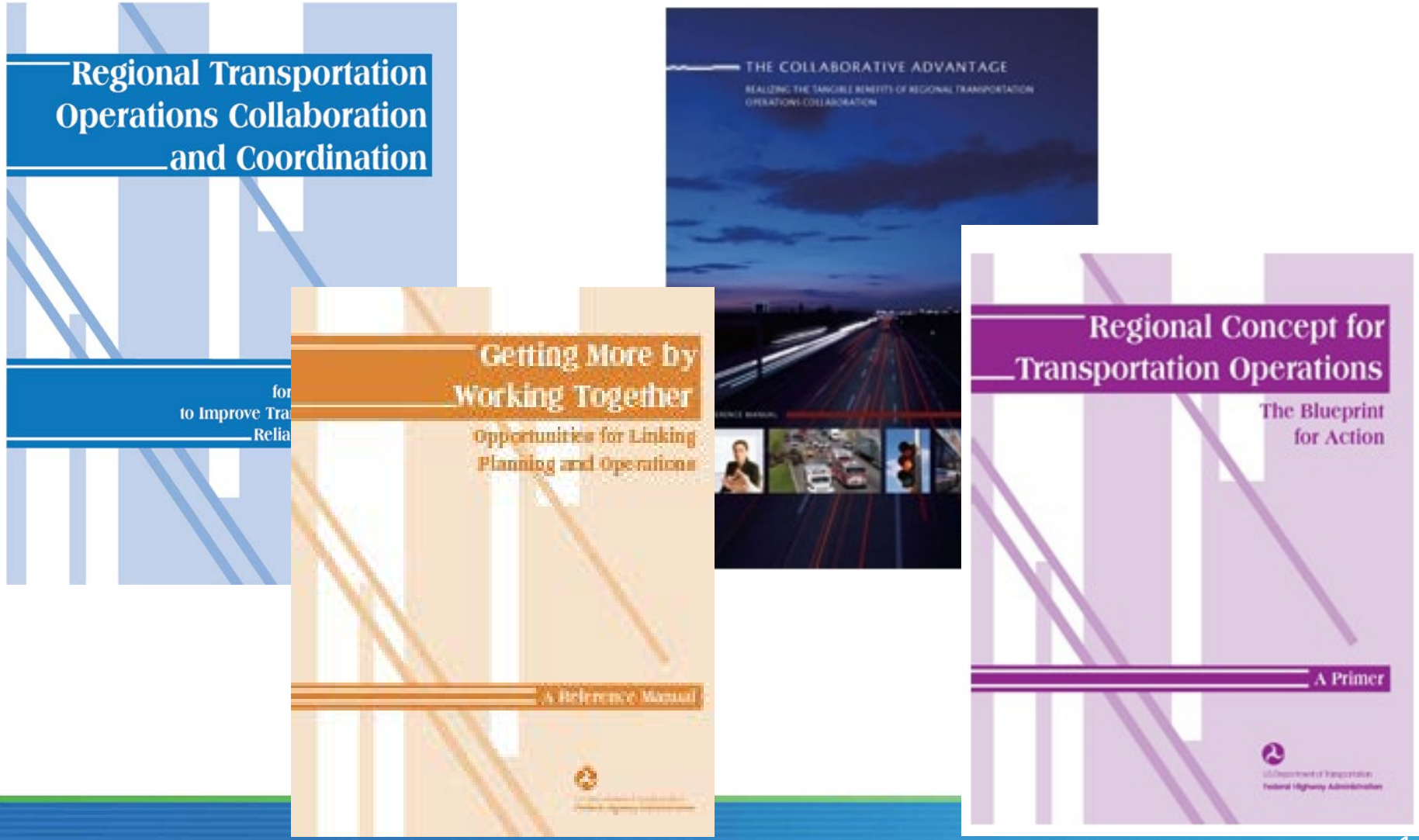

U.S. DOT Planning for Operations Resources: Supporting the Objectives-Driven, Performance-Based Approach

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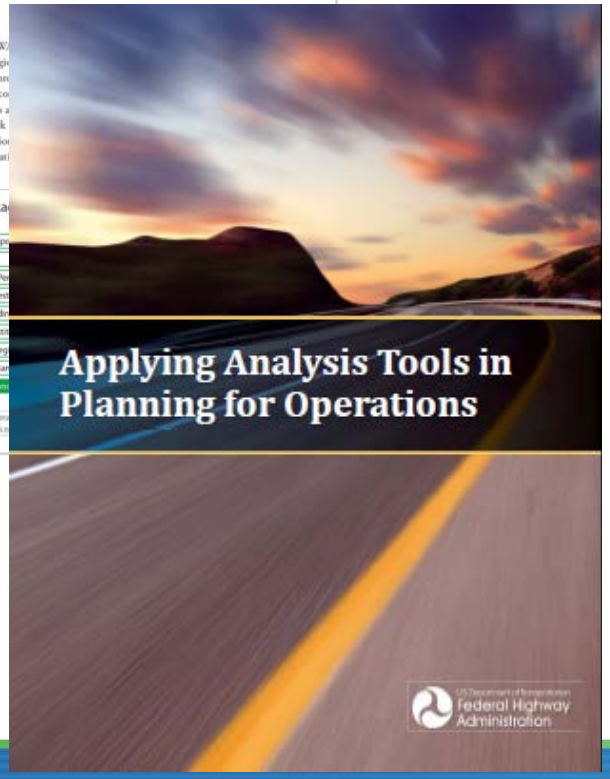

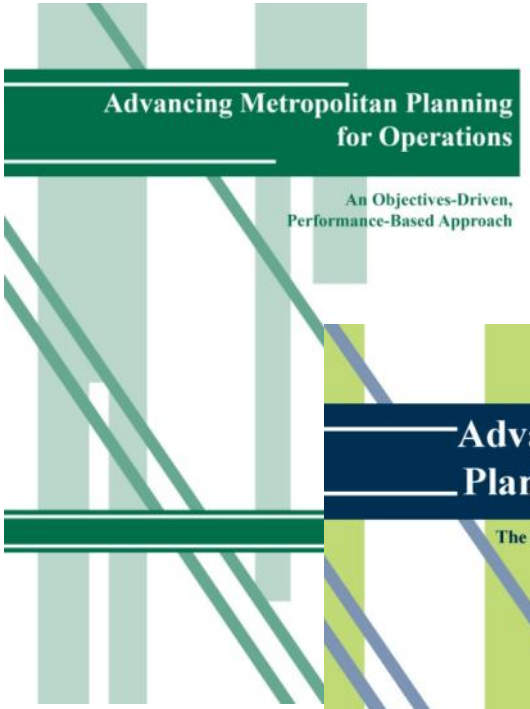

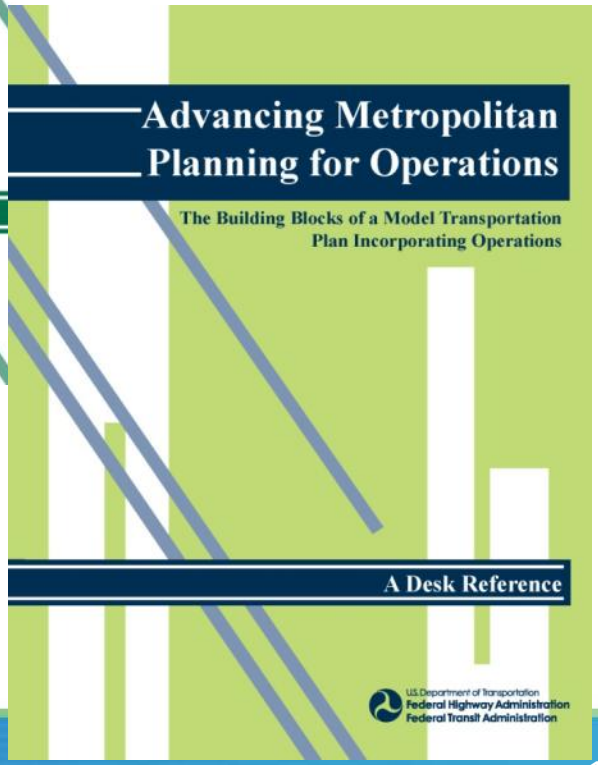

Thanks

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

FOR MORE INFORMATION:

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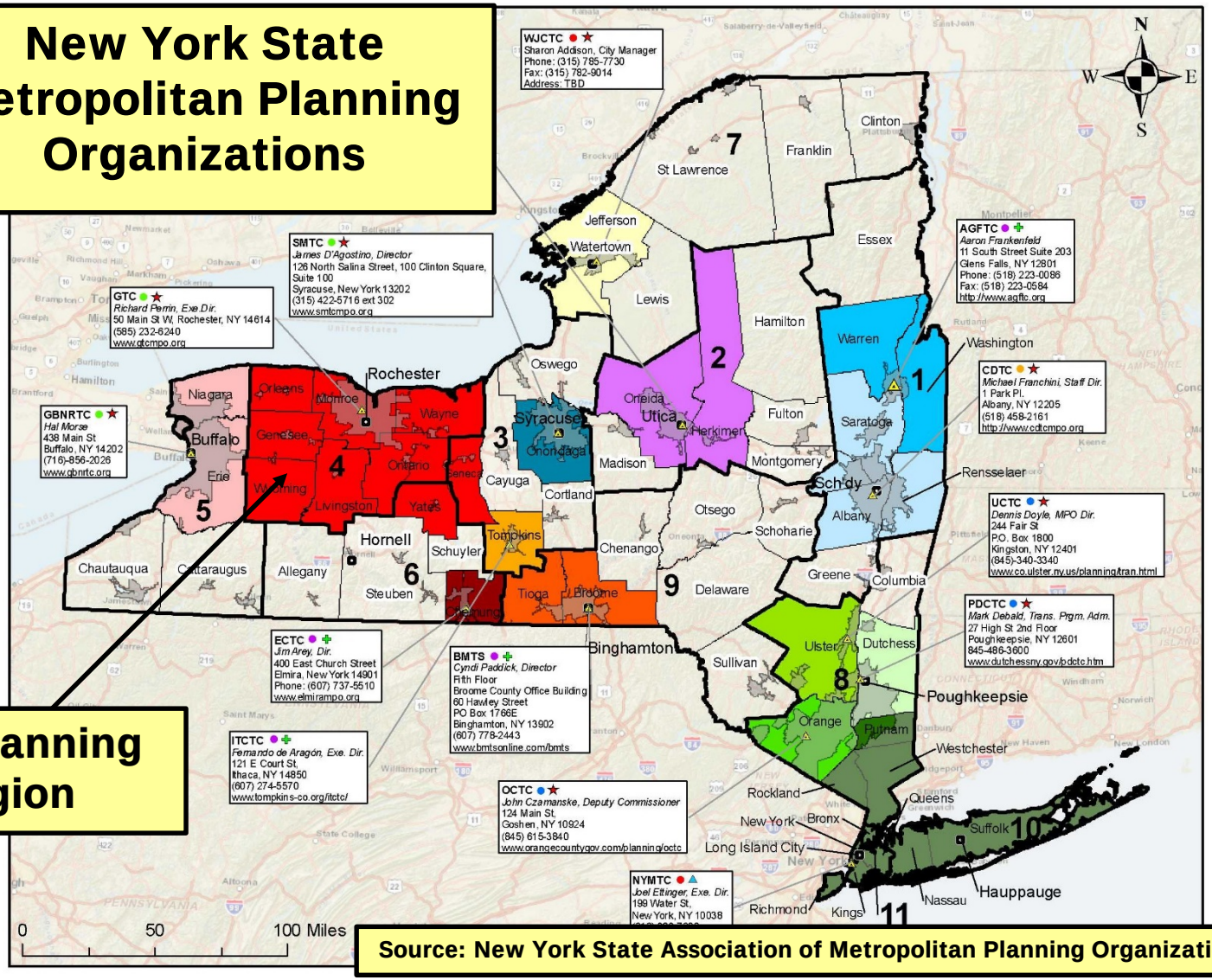
Congestion Management Coordination in the Genesee-Finger Lakes Region

Joseph M. Bovenzi, AICP

Regional Models of Cooperation in Congestion Management

February 11, 2016

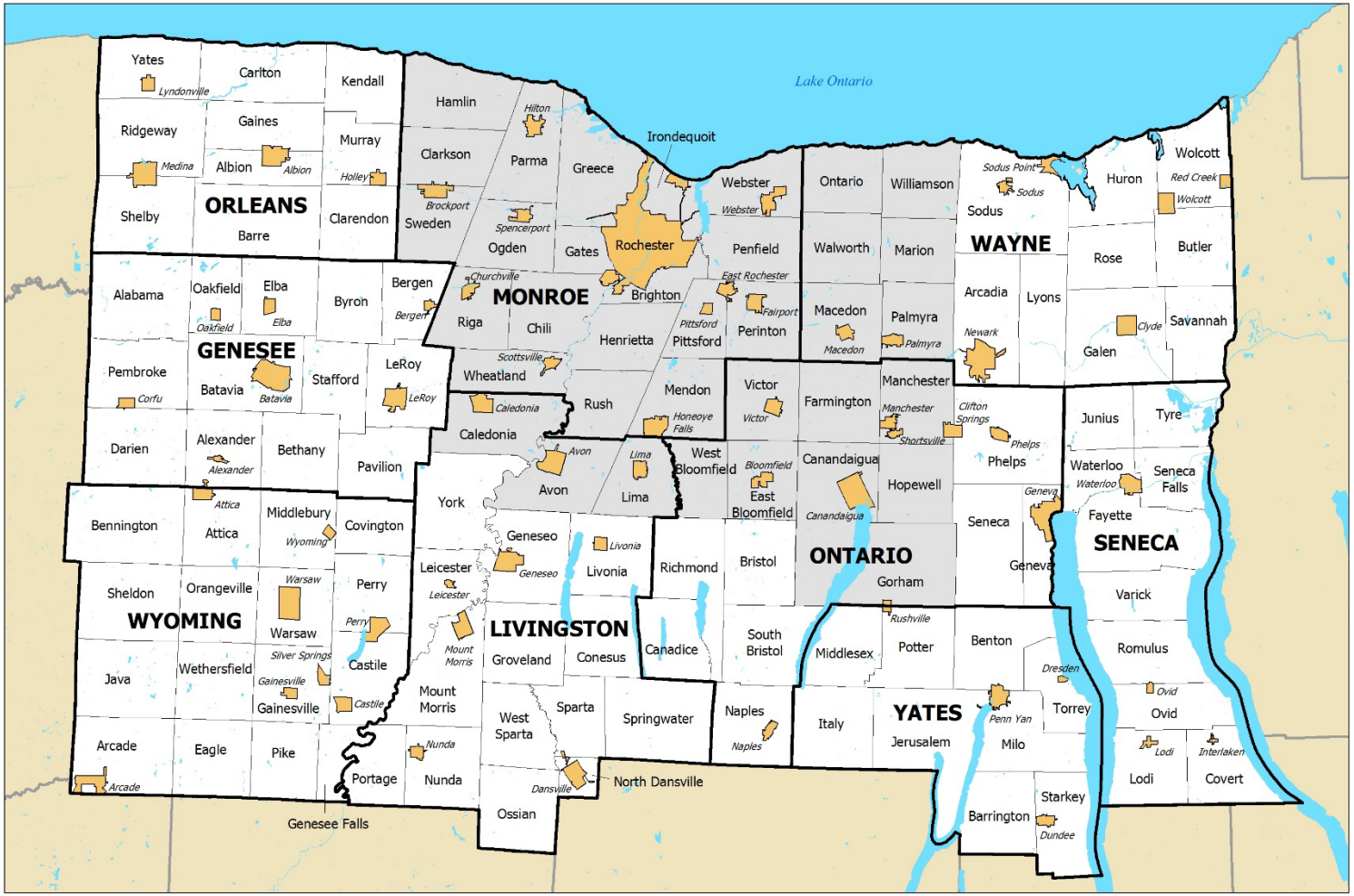
New York State Metropolitan Planning Organizations



GTC Planning Region

Source: New York State Association of Metropolitan Planning Organizations (NYSAMPO)

GTC Nine-County Planning Region and Rochester Metropolitan Planning Area



Transportation System Management and Operations Program

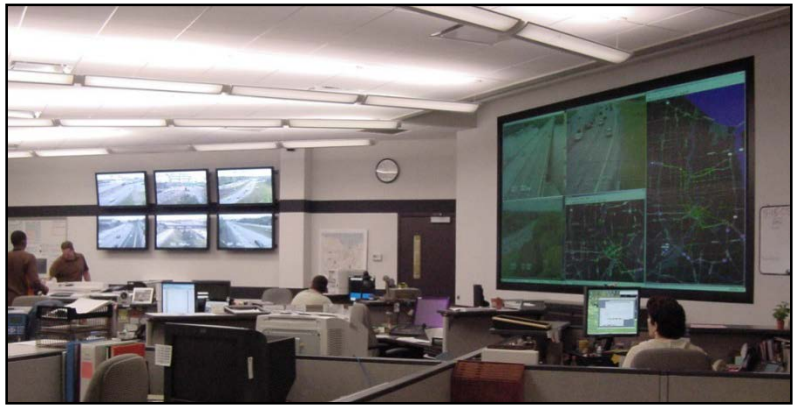
- GTC emphasizes TSMO as a primary means of advancing its Goals & Objectives
- Activities
  - Long Range Transportation Plan
  - TSMO / ITS Strategic Plan
  - Transportation Management Committee
  - Regional ITS Architecture
  - Congestion Management Process
  - Transportation Improvement Program

GTC Approach to TSMO: Three Key TSMO Elements in the Long Range Transportation Plan

- Coordination
- Technology
- Demand

Coordination: Greater Rochester ITS Strategic Plan

- **Identifies a vision for TSMO investments**
  - Multi-agency
  - Multi-jurisdictional
  - Multi-modal



- **Objectives**
  - Rationale for TSMO investments (“Why?”)
  - Roles & responsibilities (“Who?”)
  - Operational strategies (“What?” and “How?”)
  - Ten-year timeframe (“When?”)

Coordination

- **Coordination Goal: Facilitate interagency coordination and collaboration**
- **Transportation Management Committee (TMC)**
  - **Member Agencies**
    - Transportation Departments
    - Transit Authority
    - Law Enforcement
  - **Information Sharing and Discussion**
    - Construction
    - Incident Management
    - Policy/Programming

Coordination: Traffic Incident Management

➢ 2015 Traffic Incident Management (TIM) Symposium

- **Emphasis on Agency Roles & Responsibilities**
  - Build awareness of agency functions among responders
- **Session Topics**
  - First Responder Safety
  - Crash Reconstruction
  - HAZMAT Response
  - Extrication
  - NYS Move-Over Law
  - Large Incident Review

http://www.twcnews.com/nys/rochester/news/2015/10/17/genesee-finger-lakes-traffic-incident-management-symposium.html

Coordination: NYS MPO Collaboration

- **New York State Association of Metropolitan Planning Organizations (NYSAMPO)**
  - **Eight "Working Groups"**
    - Bicycle/Pedestrian
    - Climate Change
    - Freight
    - GIS
    - Modeling
    - Safety
    - **TSMO**
    - Transit
  - **Website: nysmpos.org**

Technology: ITS

- **Goal: Integrate ITS into the planning process**
  - **Enables coordination activities**
  - **Reduces infrastructure expansion needs**
- **Identify agency capabilities**
  - **Emphasize functions over specific technologies**
- **Role of ITS in "Complete Streets"**
  - **Impacts of Connected / Autonomous Vehicles**

Demand: User Expectations

- Provide accurate and up-to-date information on options for using the transportation system
  - 511NY

511 Traffic, Travel and Transit Info
www.511ny.org

- Greater Rochester Regional Commuter Choice Program

roceasyride.org

- Integrated Transportation – Land Use Planning
  - Municipal planning initiatives

Congestion Management Process (CMP)

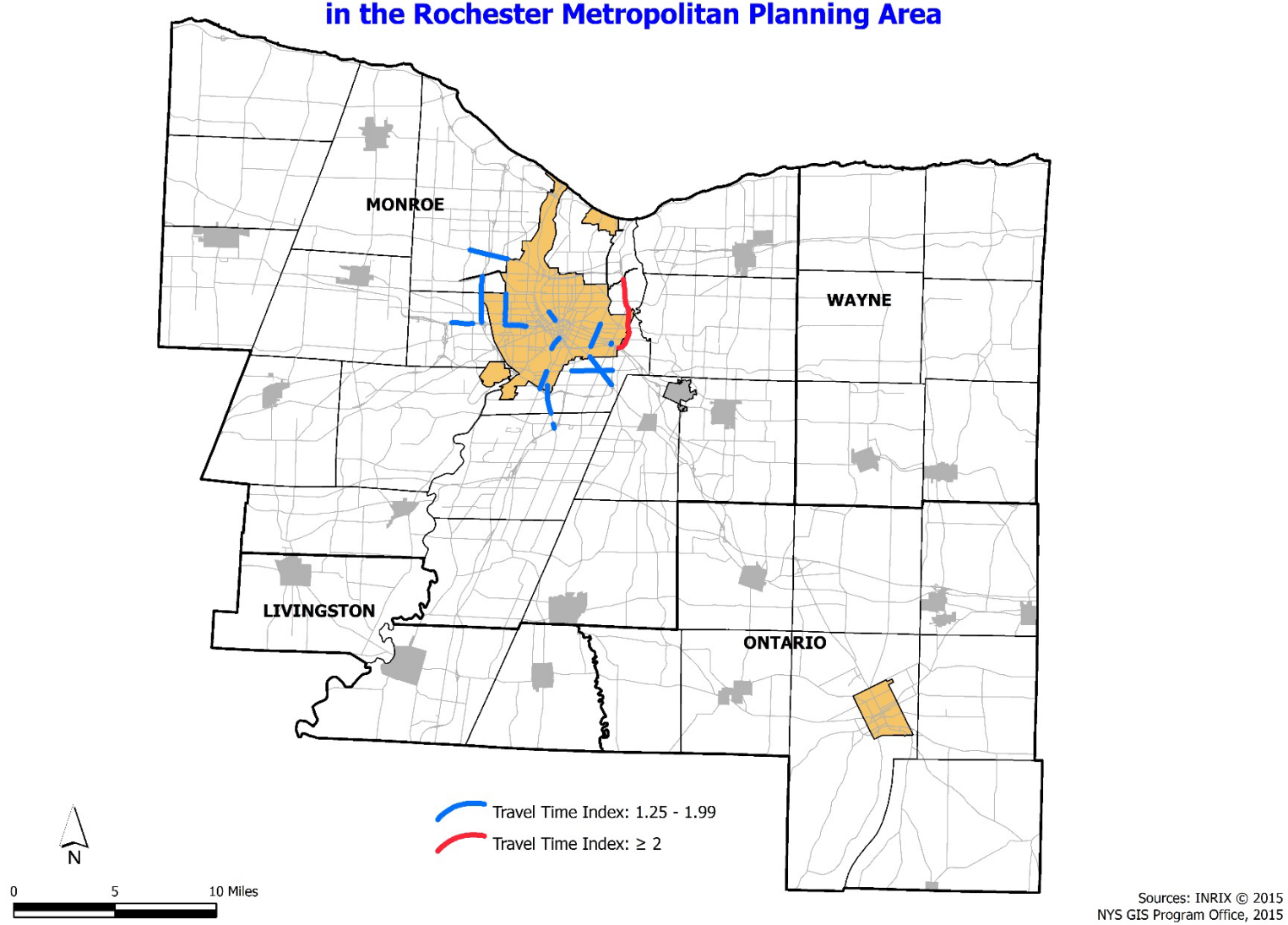
- We cannot <u>build</u> our way out of congestion, but we can <u>operate</u> our way out
- Congestion Typologies
  - Recurring capacity related
  - Planned event-related
  - Non-recurring incident-related
- CMP Performance Measures
  - Travel Time Index
  - Transit on-time performance
  - Median incident clearance time
  - Median transit load factor

Congestion Management Process (CMP)

- **Congestion Scale**
  - **Classify and illustrate congested road segments**

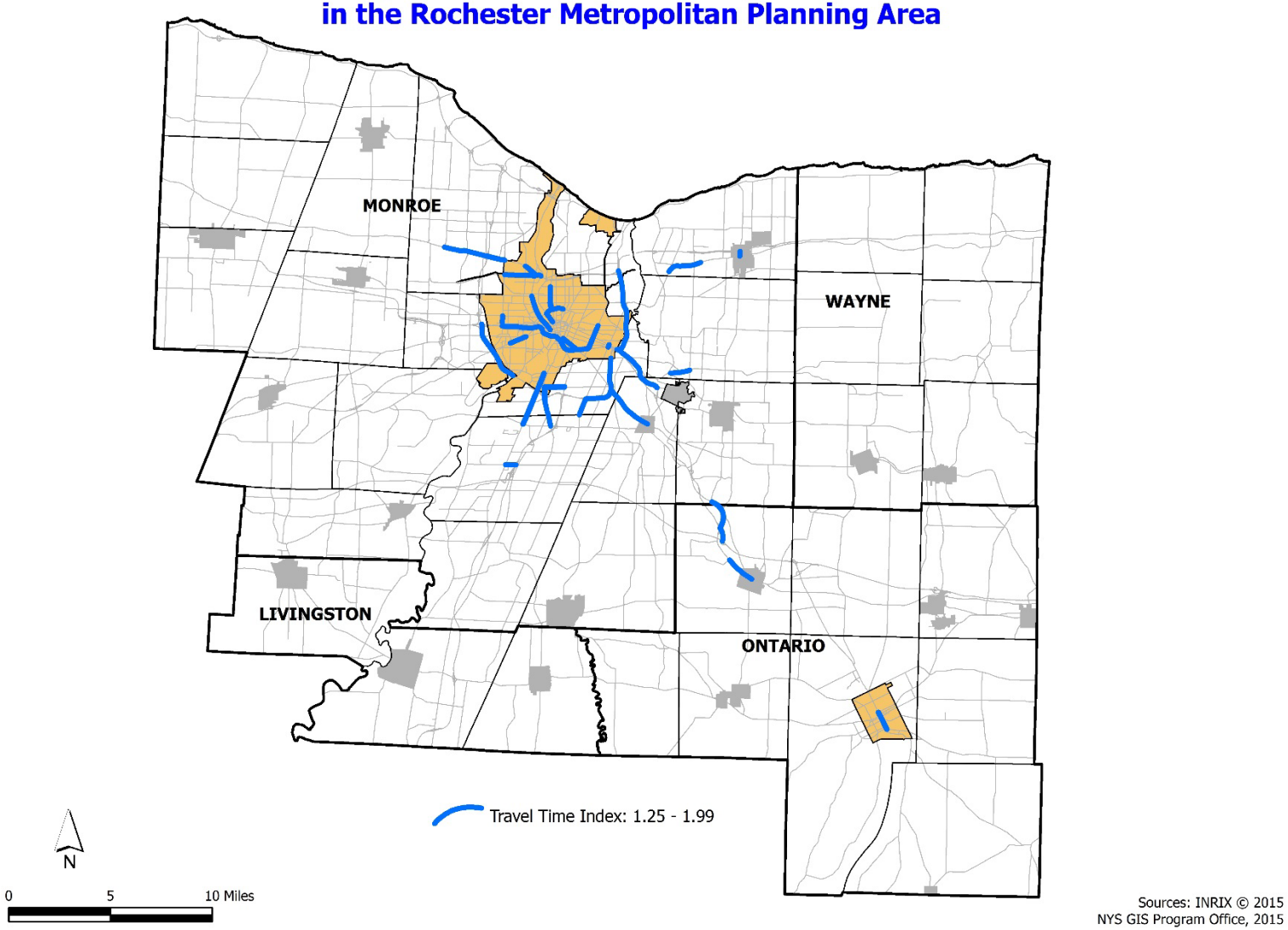
Congestion Scale for Recurring Capacity Related Delay					
Categories:	**Delay**			**Excess Delay**	
Sub-Categories:	**Minimal Congestion**	**Minor Congestion**	**Moderate Congestion**	**Congestion**	**Severe Congestion**
Color Code:					
Travel Time Index (TTI):	**<1.00**	**1.01-1.14**	**1.15-1.24**	**1.25-1.99**	**2.00>**

Congested Links in the Morning Peak Period in the Rochester Metropolitan Planning Area



Sources: INRIX © 2015
NYS GIS Program Office, 2015

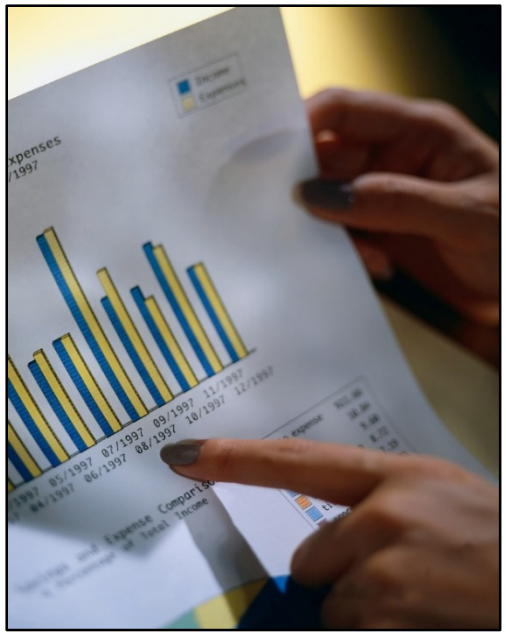
Congested Links in the Evening Peak Period in the Rochester Metropolitan Planning Area



Sources: INRIX © 2015
NYS GIS Program Office, 2015

Travel Time Data Program

- **INRIX Analytics**
  - **May 2013**
  - **Renewed May 2015**
- **Data Uses**
  - **Performance Measurement**
  - **Congestion Management Process**
  - **Special Analyses**



INRIX Driving Intelligence

TIP Project Evaluation Criteria

- **Mainstream TSMO projects into the investment decision-making process**
- **Common criteria**
  - **All projects**
  - **14 criteria (0 – 100 pts.)**

- **Mode-specific criteria**
  - **Projects classified into one of five modes**
    - Highway & Bridge
    - Public Transportation
    - Bicycle & Pedestrian
    - Goods Movement
    - **TSMO**
  - **Four or five criteria for each mode (0 – 30 pts.)**

TIP Project Evaluation Criteria

- **Transportation System Management and Operations**
  - Reduce travel times on major roadways (0 – 10 pts.)
  - Reduce incident clearance times (0 – 10 pts.)
  - Increase the productivity of regional transportation agencies/providers (0 – 5 pts.)
  - Support or advance existing and/or proposed ITS elements (0 – 5 pts.)

GENESEE TRANSPORTATION COUNCIL

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www.gtcmpo.org
@gtcmpo

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

CONGESTION MANAGEMENT PROCESS

Cooperation & Congestion Management

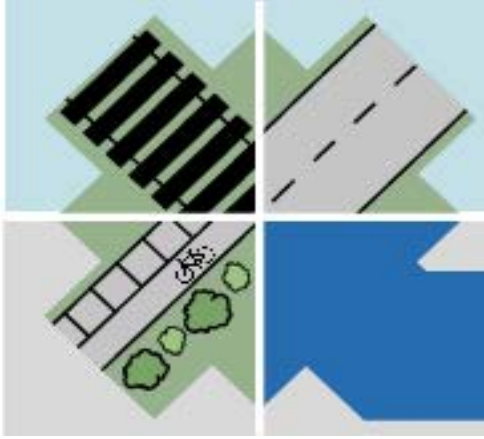
FHWA Regional Models of Cooperation Webinar
February 11, 2016

Delaware Valley Region

- Bi-state nine-county region of 352 municipalities
- Population:
  5.7 million
- Employment:
  2.6 million

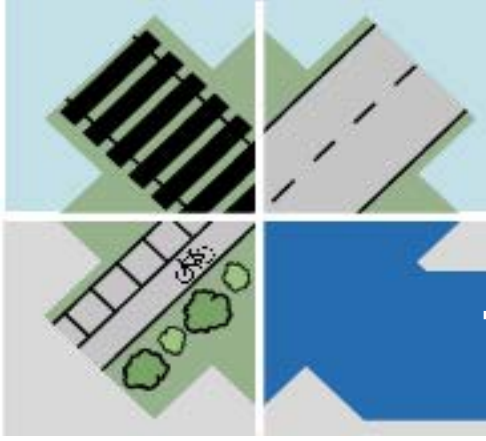
Summary of DVRPC's CMP

- Strengthens the connection between the Long-Range Plan and the TIP
- Performs analysis of the regional transportation network, identifies congested corridors, and develops sets of multimodal strategies for each congested subcorridor
- Where SOV capacity is being considered, coordinate on strategies and supplemental projects tables
- DVRPC Board adopted 4th edition in October, 2015



Advisors

- DVRPC's Board is the ultimate adopting body. It includes both states, nine counties, and four cities
- CMP Advisory Committee includes technical representatives for all Board members, FHWA and FTA, transit agencies, transportation management associations (TMAs), other DVRPC committees such as the Goods Movement Task Force, surrounding and interested MPOs, and others



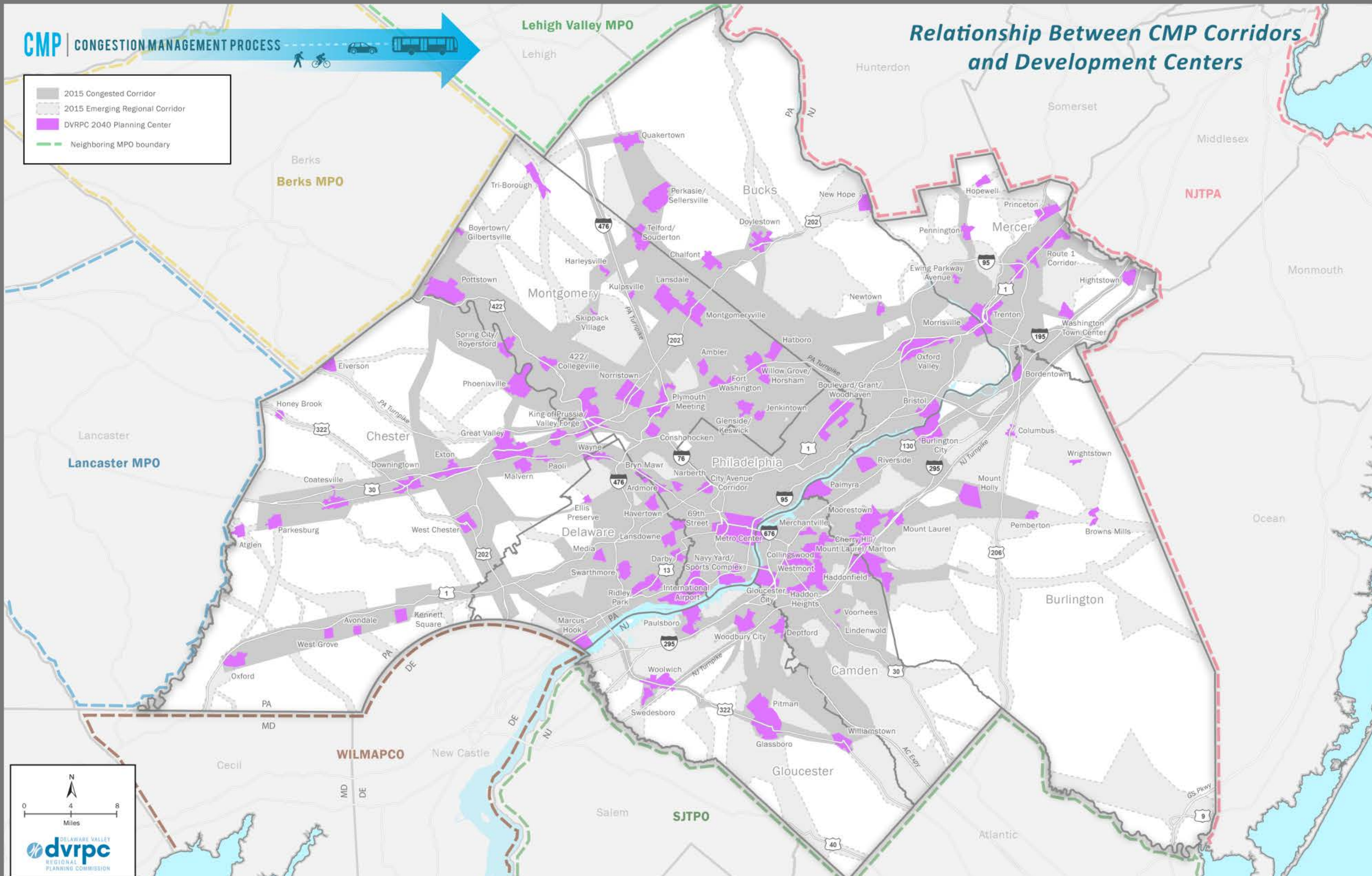
Types of CMP-Related Cooperation

- Launching a CMP or update cycle
- Implementing and maintaining momentum
- Participating in efforts that flow from the CMP
- Going beyond the CMP
  - Internal partners
  - Public and policy-makers
  - Professional field

Launching the CMP

Building trust and a shared base of knowledge are key

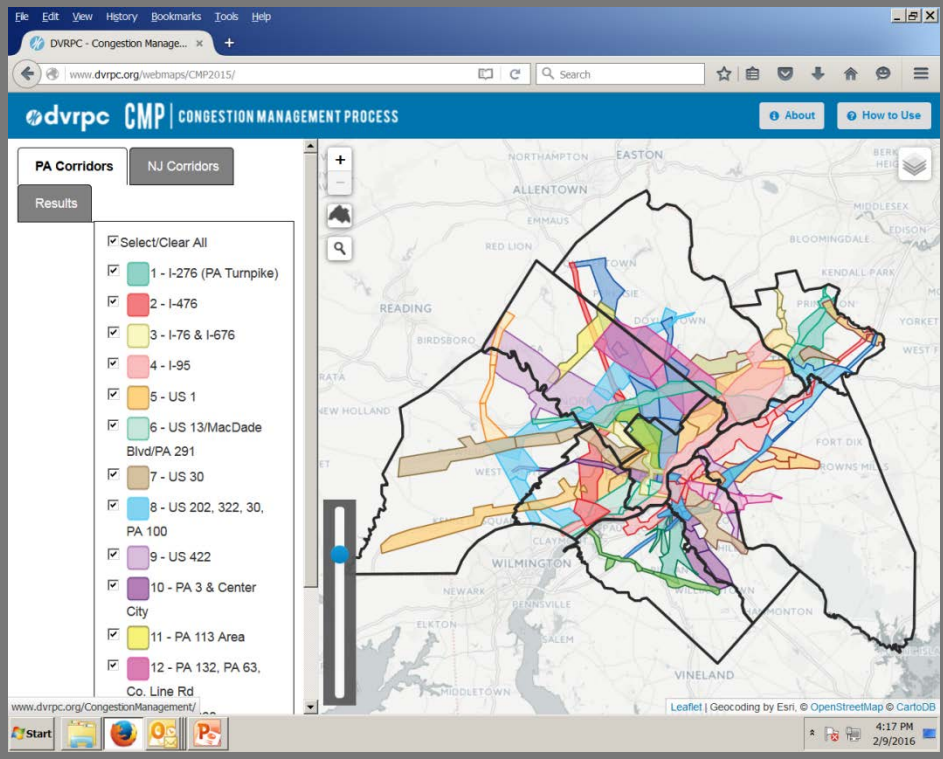
- Starting was the hardest part
- Flow from the Long-Range Plan regional vision and back into Plan updates
- Participation of trusted CMP voices, such as FHWA
- Think through which agencies and who will need to have been engaged for CMP to succeed
- Invite surrounding MPOs and agencies to be on the e-mail list for communication



Relationship Between CMP Corridors and Development Centers
CMP | CONGESTION MANAGEMENT PROCESS
2015 Congested Corridor
2015 Emerging Regional Corridor
DVRPC 2040 Planning Center
Neighboring MPO boundary
Lehigh Valley MPO
Lehigh
Berks
Berks MPO
Lancaster
Lancaster MPO
Hunterdon
Somerset
Middlesex
NJTPA
Monmouth
Ocean
Atlantic
WILMAPCO
New Castle
Cecil
Salem
SJTPO
Bucks
Montgomery
Chester
Delaware
Philadelphia
Mercer
Burlington
Camden
Gloucester
Quakertown
Perkasie/ Sellersville
Telford/ Souderton
Doylestown
New Hope
Hopewell
Princeton
Pennington
Tri-Borough
Boyertown/ Gilbertsville
Harleysville
Chalfont
Lansdale
Kulpsville
Pottstown
Skippack Village
Montgomeryville
Newtown
Ewing Parkway Avenue
Route 1 Corridor
Hightstown
Trenton
Morrisville
Washington Town Center
Spring City/ Royersford
Hatboro
422/ Collegeville
Ambler
Oxford Valley
Elverson
Phoenixville
Norristown
Fort Washington
Willow Grove/ Horsham
Boulevard/Grant/ Woodhaven
Bordentown
Honey Brook
King of Prussia/ Valley Forge
Plymouth Meeting
Jenkintown
Bristol
Great Valley
Glenside/ Keswick
Columbus
Exton
Wayne
Conshohocken
Burlington City
Downingtown
Paoli
Bryn Mawr
Riverside
Wrightstown
Coatesville
Malvern
Narberth
City Avenue Corridor
Mount Holly
Ardmore
Palmyra
Ellis Preserve
Havertown
69th Street
Moorestown
Parkesburg
West Chester
Merchantville
Mount Laurel
Pemberton
Browns Mills
Atglen
Media
Lansdowne
Metro Center
Cherry Hill/ Mount Laurel/ Marlton
Darby
Navy Yard/ Sports Complex
Collingswood
Westmont
Swarthmore
Haddonfield
International Airport
Ridley Park
Gloucester City
Haddon Heights
Voorhees
Avondale
Kennett Square
Marcus Hook
Paulsboro
Woodbury City
Deptford
Lindenwold
West Grove
Oxford
Woolwich
Swedesboro
Pitman
Williamstown
Glassboro
PA
NJ
MD
DE
PA Turnpike
NJ Turnpike
AC Expy
GS Pkwy
Miles
DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

Advisory Committee Member Comment

"…I reflected on the technical materials you generate to facilitate the process—web maps & maps, strategy definitions, decision-making processes, and more. These materials form the basis for making collective, collaborative decisions, as well as a record of them. As communication devices, they are one of the keys to the CMP's success…."



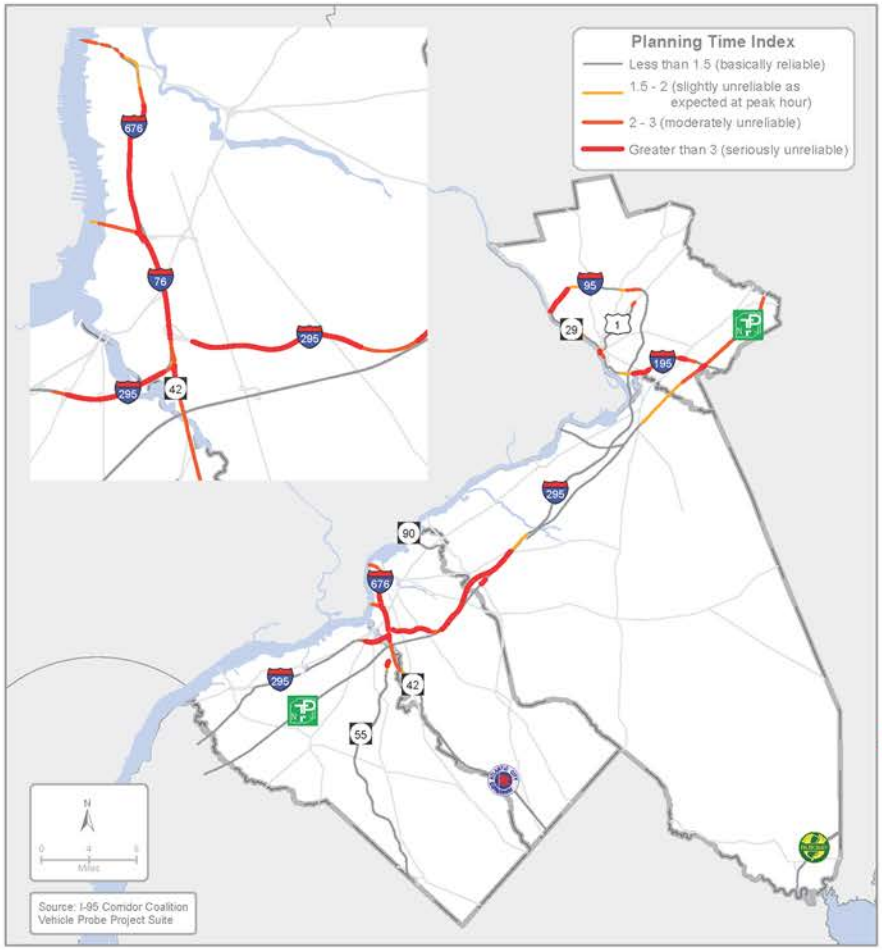
Screenshot of interactive online web map

CMP 2014: Planning Time Index (PTI) in New Jersey (5-6 PM, all weekdays in 2013)

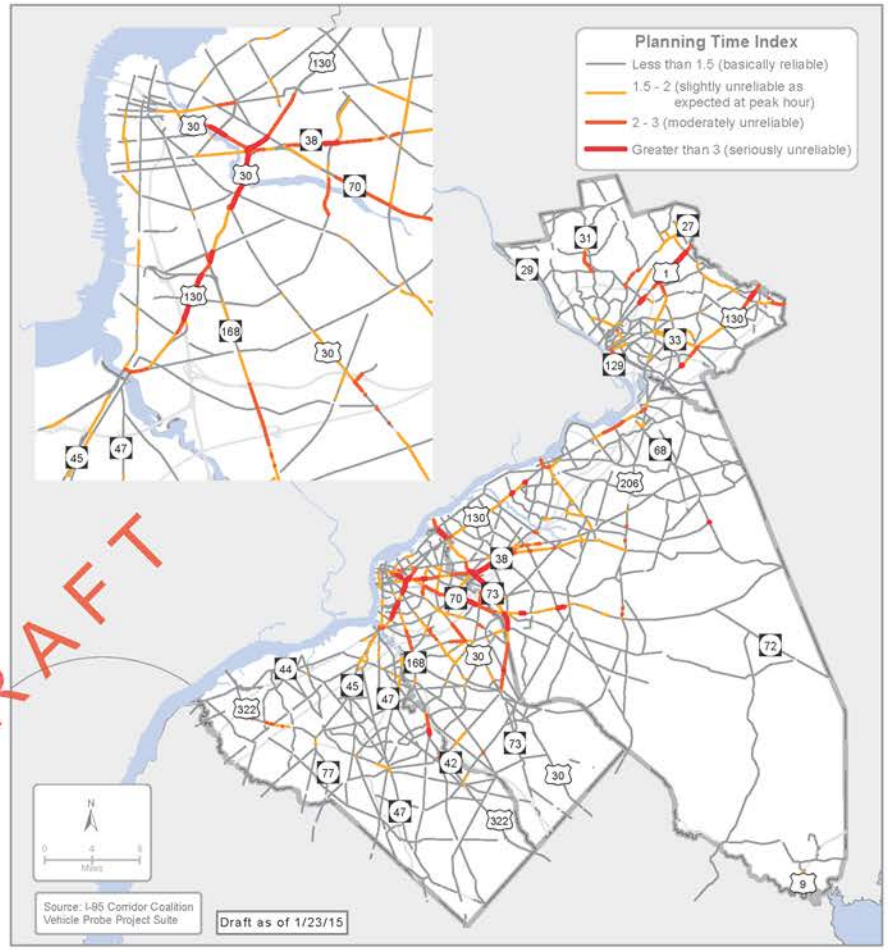
DRAFT

Goal:
Increase Accessibility & Mobility

PTI on Limited Access Roads



PTI on Arterial Roads



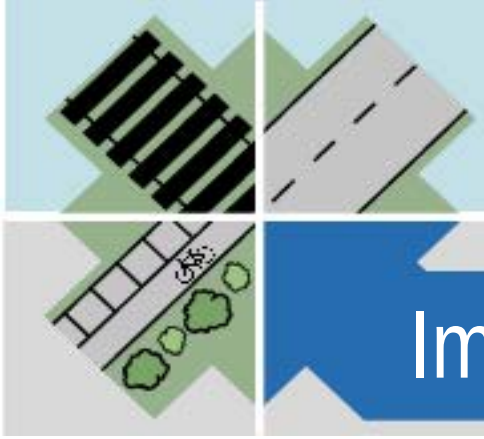
A PTI of 1.5 means that for a trip that takes 20 minutes under free-flow conditions, a traveler should budget a total of 30 minutes to ensure on-time arrival 95 percent of the time. It is normal and appropriate for PTI to increase somewhat at peak hours.

PTI = (95th Percentile Travel Time) / (Free-Flow Travel Time*)

*Free-flow values in this equation were determined using the reference speeds received by the VPP from their data providers for each road segment. Reference speeds represent the 85th percentile observed speed for all time periods, with a maximum value of 65 mph.
For more information, see https://vpp.ritis.org/suite/faq/#/performance-measures.

Archived operations data on arterial roads poses challenges. Experts are exploring how to account for intersections, driveways, and other characteristics. Data quality decreases as volume decreases. DVRPC may focus on arterials with more than one lane per direction and/or AADT >= 15,000

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION



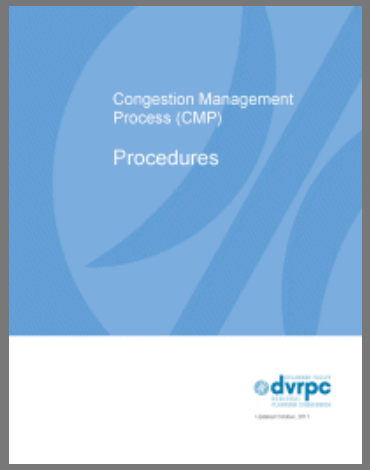
Implementing and Maintaining Momentum

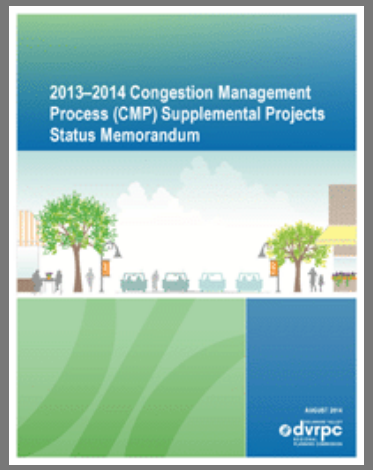
Keep building bridges

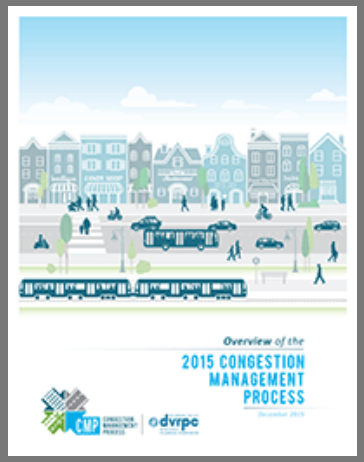
- Outreach meetings to various groups within DOTs
- Outreach meetings to help transit, TMA, and other supplemental project groups see why and how

- Federal requirements guide next steps
  - Supplemental projects
  - Reporting requirements

Sample of Implementation Pieces

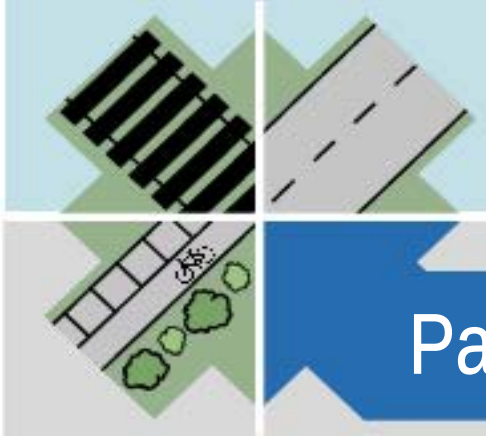






Is the problem in a congested subcorridor? Is the problem in an emerging/regionally significant corridor?	if YES... Document.	if NO... It may not matter, depending on the project.*
Can the problem be addressed without building more road capacity?	if YES... DVRPC is available to help evaluate strategies.	if NO... Document this initial research.
If new road capacity is an alternative, is it likely to be Major SOV Capacity?**	if YES... Go to the next question.	if NO... Keep the project description current in TIP listings; DVRPC is available to help.
Is the new Major SOV Capacity consistent with the CMP?	if YES... Start considering supplemental strategies and contact DVRPC CMP staff.	if NO... A different SOV Capacity-adding strategy was listed – *Include that strategy in an alternative; include other CMP strategies as alternatives.* Adding Major SOV Capacity was not listed – *Use the CMP Very Appropriate, Secondary, and Strategies Appropriate Everywhere to develop alternatives.* The project is not in a congested subcorridor – *See instructions for "Evaluating Projects Outside of Congested Corridors" and checklist.** Contact DVRPC CMP staff.
Are the supplemental strategies set?	if YES... Stakeholders agree on strategies, implementation, and timeline; DVRPC RTC has adopted table.	if NO... DVRPC remains available to help.

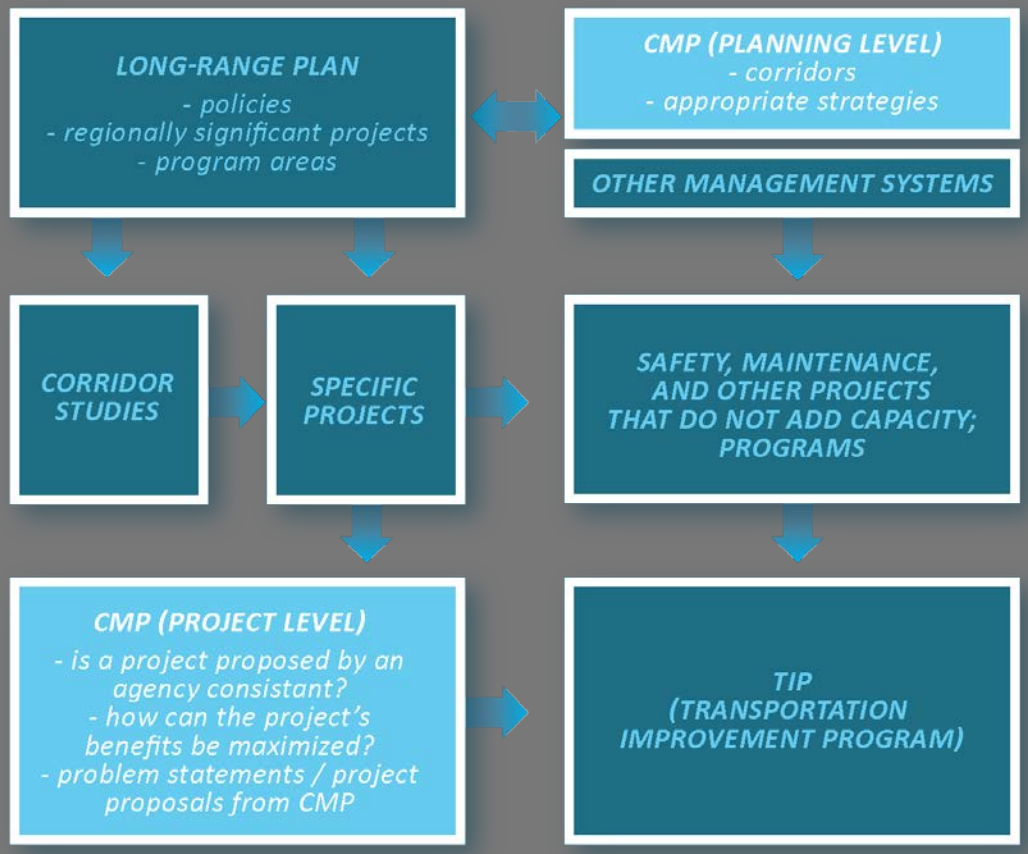
Diagram of the CMP process, three publications, and example of a checklist from the CMP Procedures, all available at DVRPC.org



Participating in Efforts Flowing from CMP

- There are a lot of related efforts to join
  - Congestion management at DOTs, operations planning, transportation security planning, transit
- Getting from medium-term CMP planning to projects on the ground requires participation in a lot of other processes
  - problem statement development, TIP

How the CMP Fits with Other Efforts



Beyond the CMP

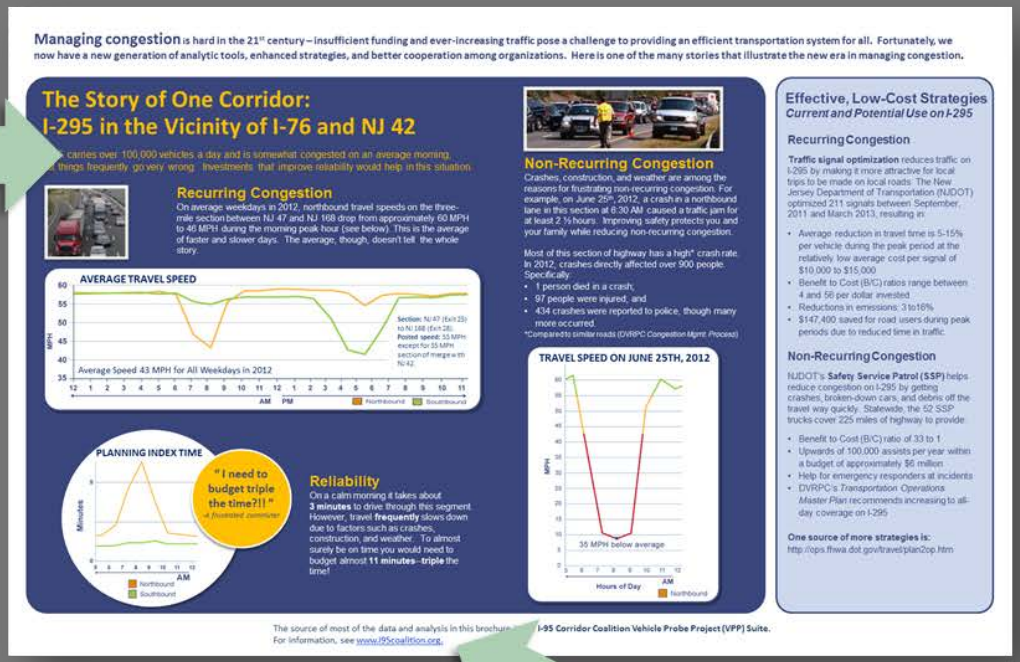
- Internal partners (safety, operations, modeling, transit, corridor studies, land use, Plan, TIP)
- Public and policy-makers (how to communicate is as important as what; includes interactive web maps and targeted newsletters)
- Professional field (help an adjacent MPO, participate in FHWA efforts and I-95 Corridor Coalition, develop Partners Using Archived Operations Data for Planning)

Center of Elevator Speech Brochure

Tell a story

Educate

- *Travel time*
- *Reliability*



Managing congestion is hard in the 21st century – insufficient funding and ever-increasing traffic pose a challenge to providing an efficient transportation system for all. Fortunately, we now have a new generation of analytic tools, enhanced strategies, and better cooperation among organizations. Here is one of the many stories that illustrate the new era in managing congestion.

The Story of One Corridor: I-295 in the Vicinity of I-76 and NJ 42

...carries over 100,000 vehicles a day and is somewhat congested on an average morning. ...things frequently go very wrong. Investments that improve reliability would help in this situation.

Recurring Congestion

On average weekdays in 2012, northbound travel speeds on the three-mile section between NJ 47 and NJ 168 drop from approximately 60 MPH to 46 MPH during the morning peak hour (see below). This is the average of faster and slower days. The average, though, doesn't tell the whole story.

AVERAGE TRAVEL SPEED

Average Speed 43 MPH for All Weekdays in 2012

Section: NJ 47 (Exit 23) to NJ 168 (Exit 28)
Posted speed: 55 MPH except for 35 MPH section of merge with NJ 42

AM PM Northbound Southbound

PLANNING INDEX TIME

"I need to budget triple the time?!!"
–A frustrated commuter

Minutes AM Northbound Southbound

Reliability

On a calm morning it takes about **3 minutes** to drive through this segment. However, travel **frequently** slows down due to factors such as crashes, construction, and weather. To almost surely be on time you would need to budget almost **11 minutes**–**triple** the time!

Non-Recurring Congestion

Crashes, construction, and weather are among the reasons for frustrating non-recurring congestion. For example, on June 25th, 2012, a crash in a northbound lane in this section at 6:30 AM caused a traffic jam for at least 2 ½ hours. Improving safety protects you and your family while reducing non-recurring congestion.

Most of this section of highway has a high* crash rate. In 2012, crashes directly affected over 900 people. Specifically:

- 1 person died in a crash;
- 97 people were injured, and
- 434 crashes were reported to police, though many more occurred.

*Compared to similar roads (DVRPC Congestion Mgmt. Process)

TRAVEL SPEED ON JUNE 25TH, 2012

35 MPH below average

Hours of Day AM Northbound

Effective, Low-Cost Strategies
Current and Potential Use on I-295

Recurring Congestion

Traffic signal optimization reduces traffic on I-295 by making it more attractive for local trips to be made on local roads. The New Jersey Department of Transportation (NJDOT) optimized 211 signals between September, 2011 and March 2013, resulting in

- Average reduction in travel time is 5-15% per vehicle during the peak period at the relatively low average cost per signal of $10,000 to $15,000
- Benefit to Cost (B/C) ratios range between 4 and 56 per dollar invested
- Reductions in emissions: 3 to16%
- $147,400 saved for road users during peak periods due to reduced time in traffic

Non-Recurring Congestion

NJDOT's **Safety Service Patrol (SSP)** helps reduce congestion on I-295 by getting crashes, broken-down cars, and debris off the travel way quickly. Statewide, the 52 SSP trucks cover 225 miles of highway to provide

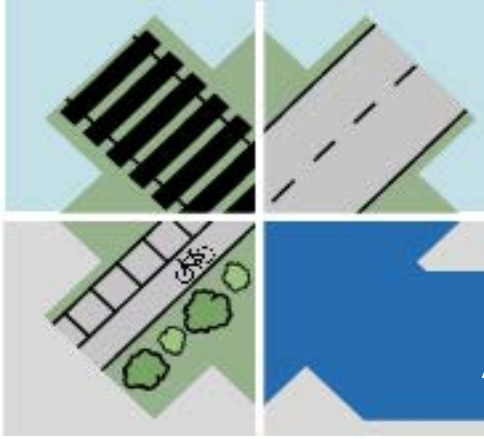
- Benefit to Cost (B/C) ratio of 33 to 1
- Upwards of 100,000 assists per year within a budget of approximately $6 million
- Help for emergency responders at incidents
- DVRPC's *Transportation Operations Master Plan* recommends increasing to all-day coverage on I-295

One source of more strategies is:
http://ops.fhwa.dot.gov/travelplan2op.htm

The source of most of the data and analysis in this brochure ... **I-95 Corridor Coalition Vehicle Probe Project (VPP) Suite.**
For information, see www.i95coalition.org.

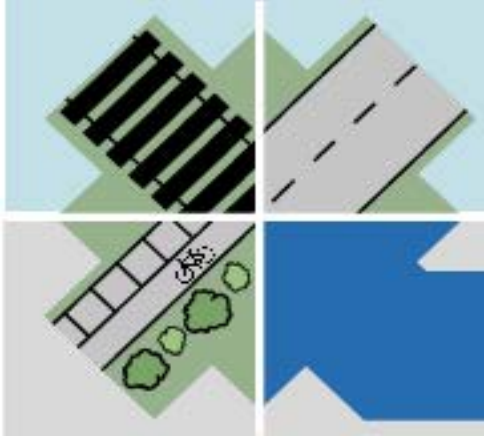
Justify and educate

Educate



A Few Other DVRPC Examples

- Incident Management Task Forces
- Central Jersey Transportation Forum (coordination of transportation and land use planning)
- Greater Philadelphia Food System Plan
- Equity Through Access (Coordinated Human Services Transportation Plan)
- Building the Circuit (Regional Trails Program)



Reflections on Cooperation

- Some reasons to cooperate
  - Helps with doing best possible, most effective work
  - Building a shared history and trust makes it easier to listen to each other, and builds a network for related work
  - Enhances a positive reputation to start future projects
- Think about where you want to end up, but advance in manageable steps so as to not get overwhelmed

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

CONGESTION MANAGEMENT PROCESS

For more information, see www.dvrpc.org/CongestionManagement or contact us:

Zoe Neaderland, Manager
Office of Transportation Safety & Congestion Management
(215) 238-2839
ZNeaderland@dvrpc.org

Regional Collaboration on Congestion Management

CONNECTING LAND USE AND TRANSPORTATION IN THE PORTLAND, OREGON METROPOLITAN REGION

Alan Lehto
Director of Planning & Policy
February 11, 2016

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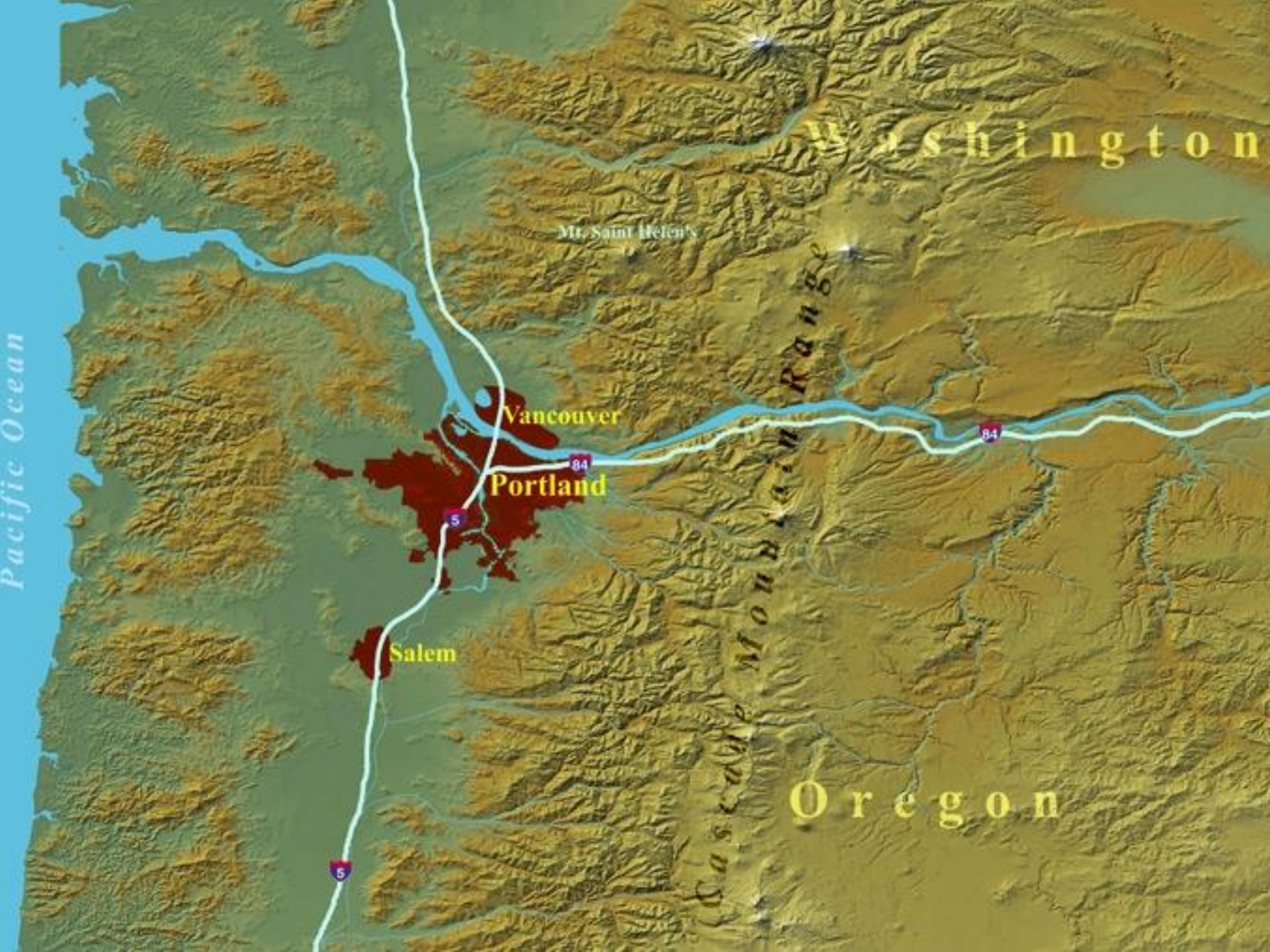
A little bit about the Portland, OR region





1.5 million people 25 cities 3 counties 1 region	60 miles light rail 15 miles commuter rail 79 bus lines	7 directly elected Councilors 17 member MPO Board	33,229 acres parks and natural areas	500 square miles urban growth boundary

Don't just chase congestion – <u>Plan</u> for mobility and access


Washington
Mt. Saint Helen's
Vancouver
Portland
Salem
Cascade Mountain Range
Oregon
Pacific Ocean
5
84
84
5

Regional Vision: 2040 Growth Concept

Building toward six desired outcomes

Vibrant communities

Equity

Economic prosperity

Transportation choices

Clean air & water

Climate leadership

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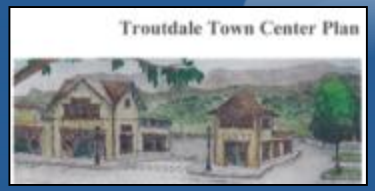
Building upon local plans and visions

Beaverton Civic Plan
growing together

THE PORTLAND PLAN



envision
Tualatin Tomorrow

LINKING Tualatin

AmberGlen
Community Plan

SPRINGWATER COMMUNITY

IMAGINE WEST LINN

Hillsboro 2020

Complete Communities
FOR CLACKAMAS COUNTY

WE LO
Planning for People, Places and Prosperity

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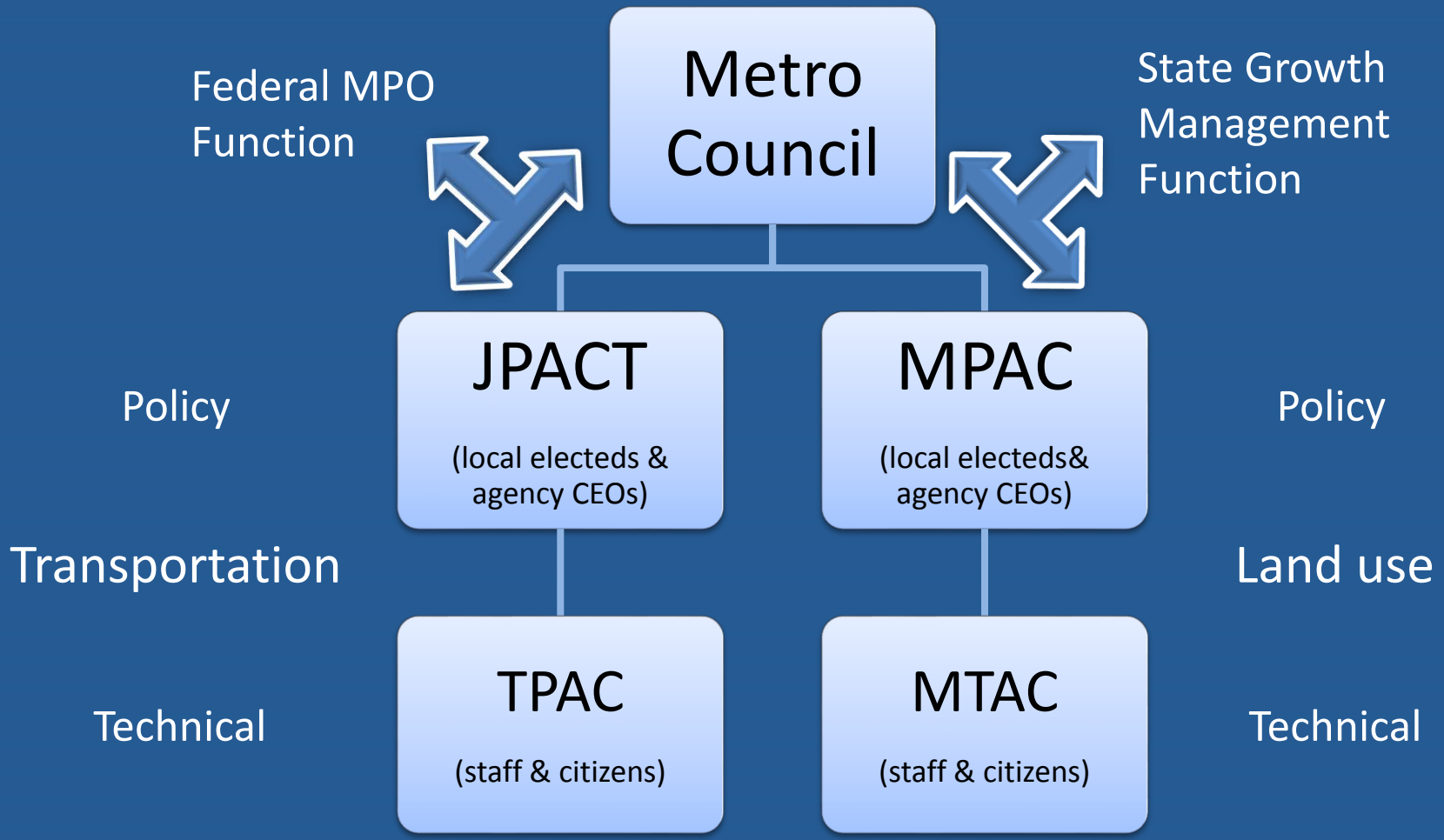
Regional Governance Structure



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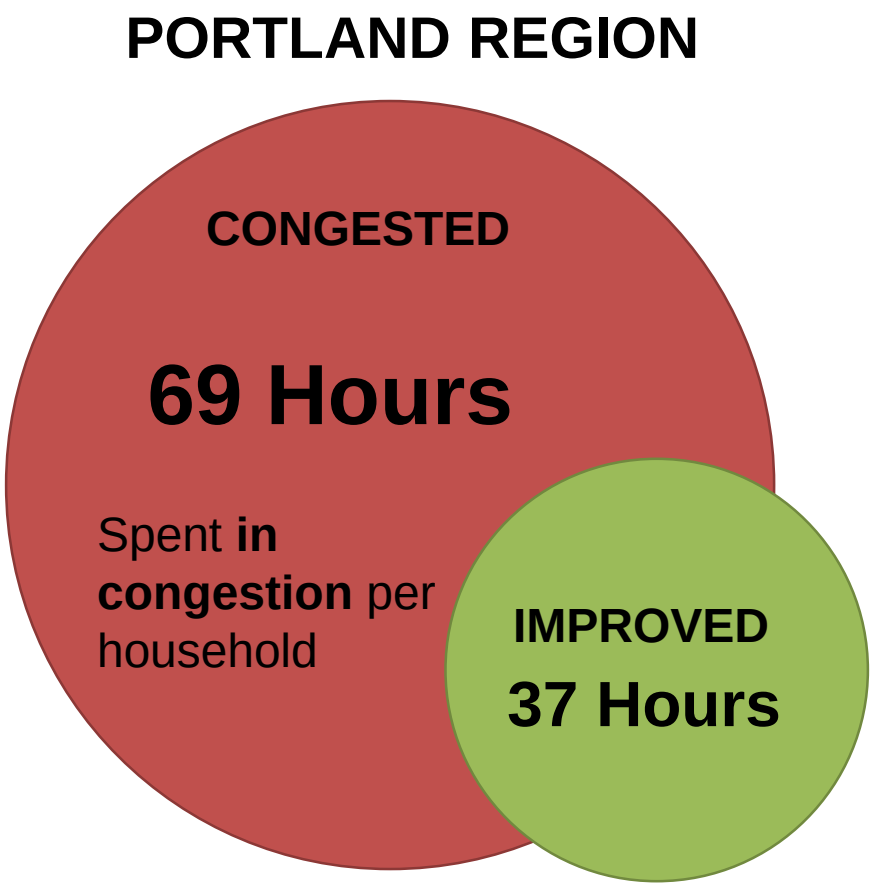
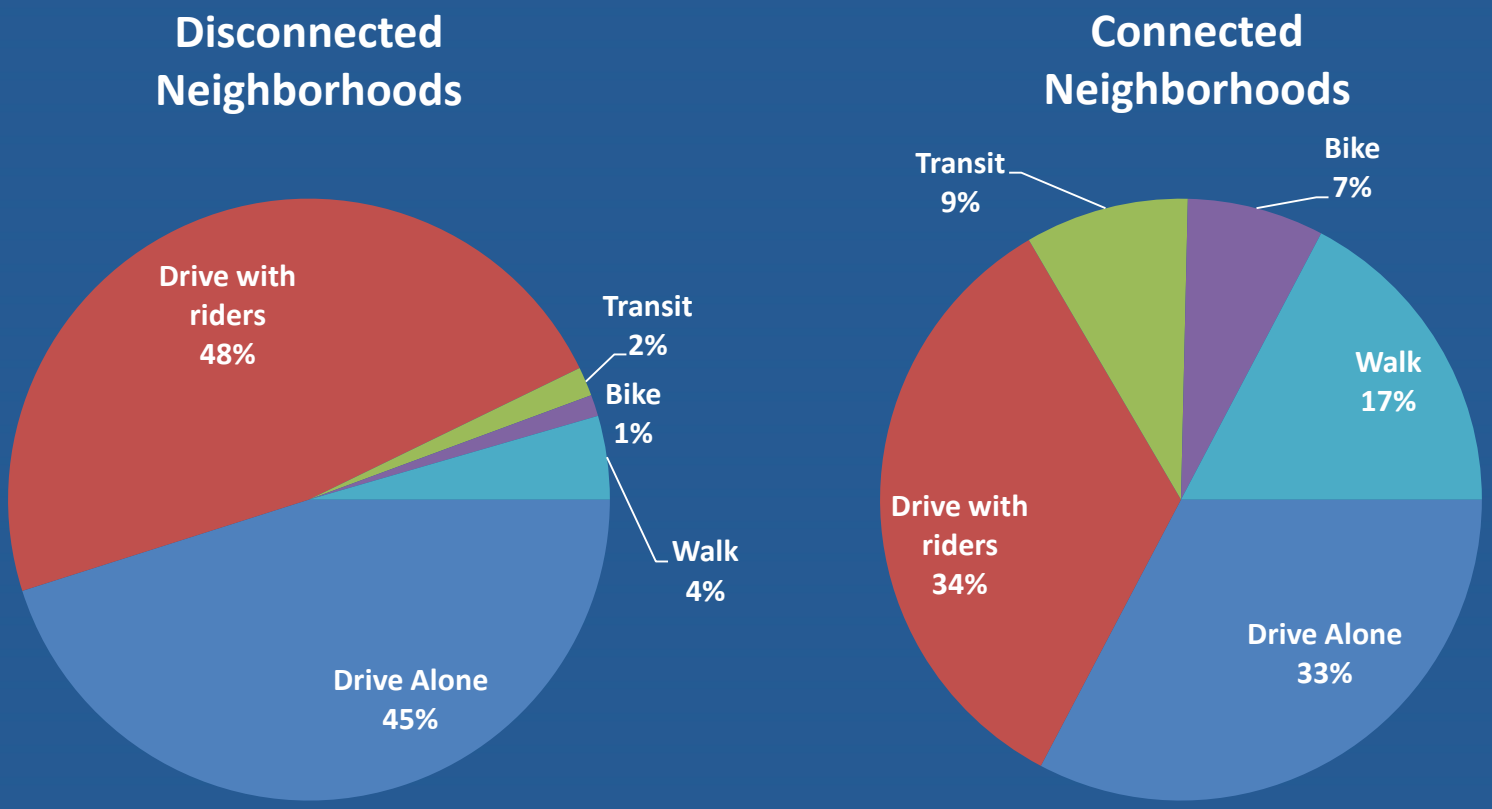
Comparing the Alternatives



Economic Development RESEARCH GROUP

Getting there with choices



Data Source: Oregon Household Activity Survey 2011; analyzed by Kittelson & Associates, using Oregon Metro Land Use Typology

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The Gift That Keeps On Giving

Data for Core Areas Points Toward Long-Term Benefits:

	survey	number of survey hh	Mode Share %Auto[3]	%Walk	%Transit	%Bike	%Other	VMT/Capita	Veh/HH
Good Transit/Mixed Use[1]	94-95	116	58.1%	27.0%	11.5%	1.9%	1.5%	9.80	0.93
Good Transit/Mixed Use[2]	2011	81[4]	36.0%	44.3%	15.9%	1.9%	1.9%	6.54	0.64

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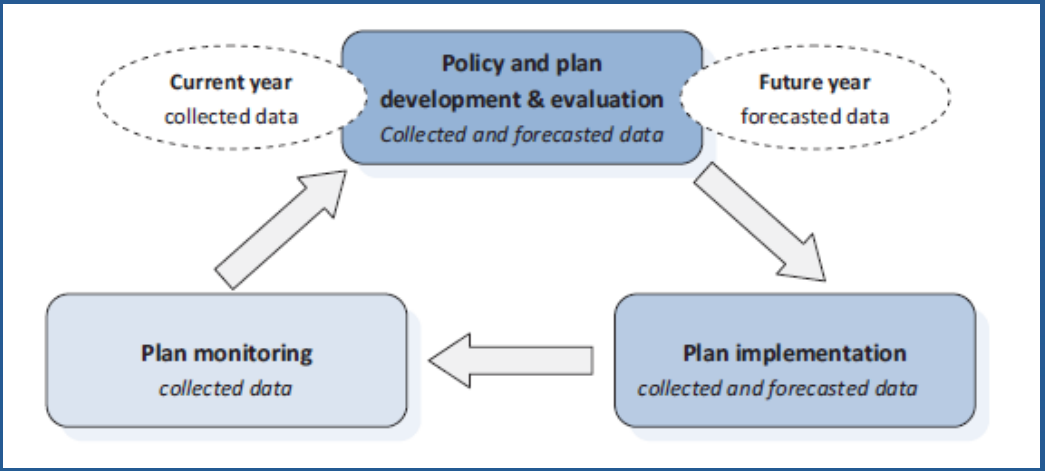
Congestion Management Process

- Integral component of the Regional Transportation Plan (Long-Range Plan)
  - Goal 1: Foster Vibrant Communities and Efficient Urban Form
  - Goal 2: Sustain Economic Competitiveness and Prosperity
  - Goal 3: Expand Transportation Choices
  - Goal 4: Emphasize Effective and Efficient Management of the Transportation System
  - Goal 5: Enhance Safety and Security



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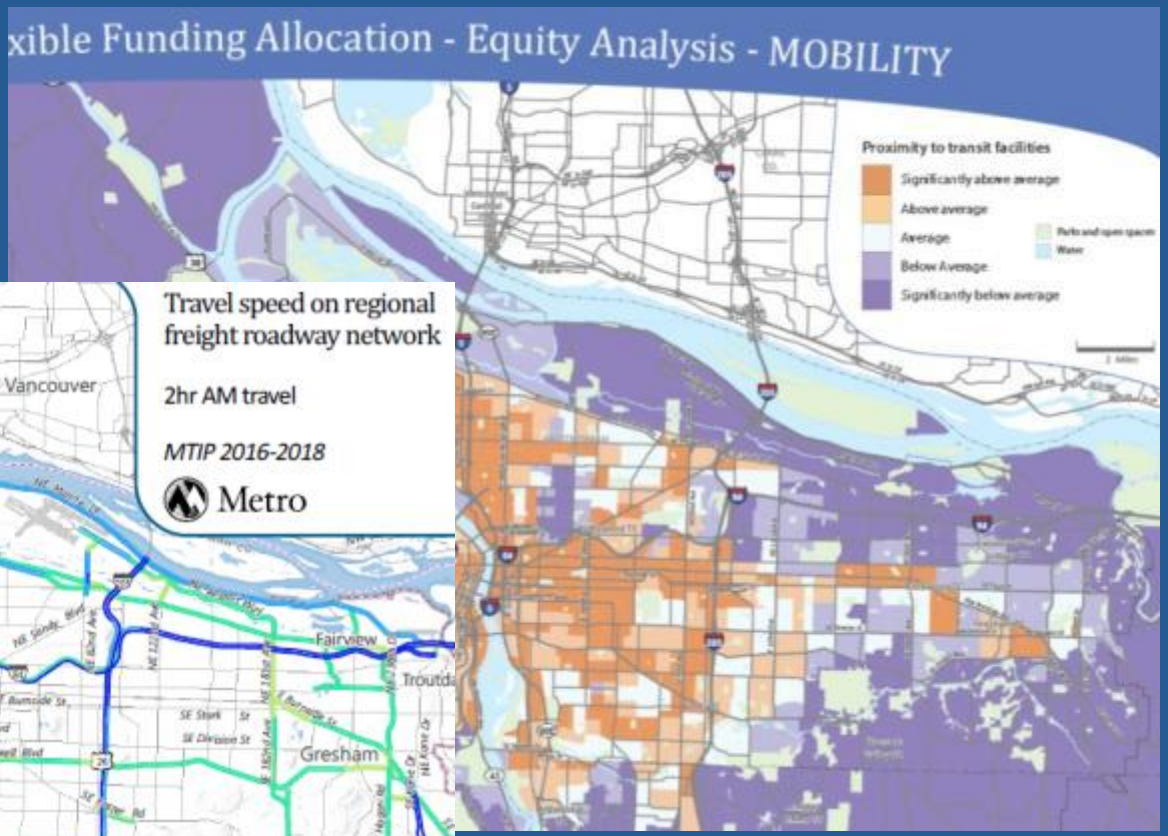
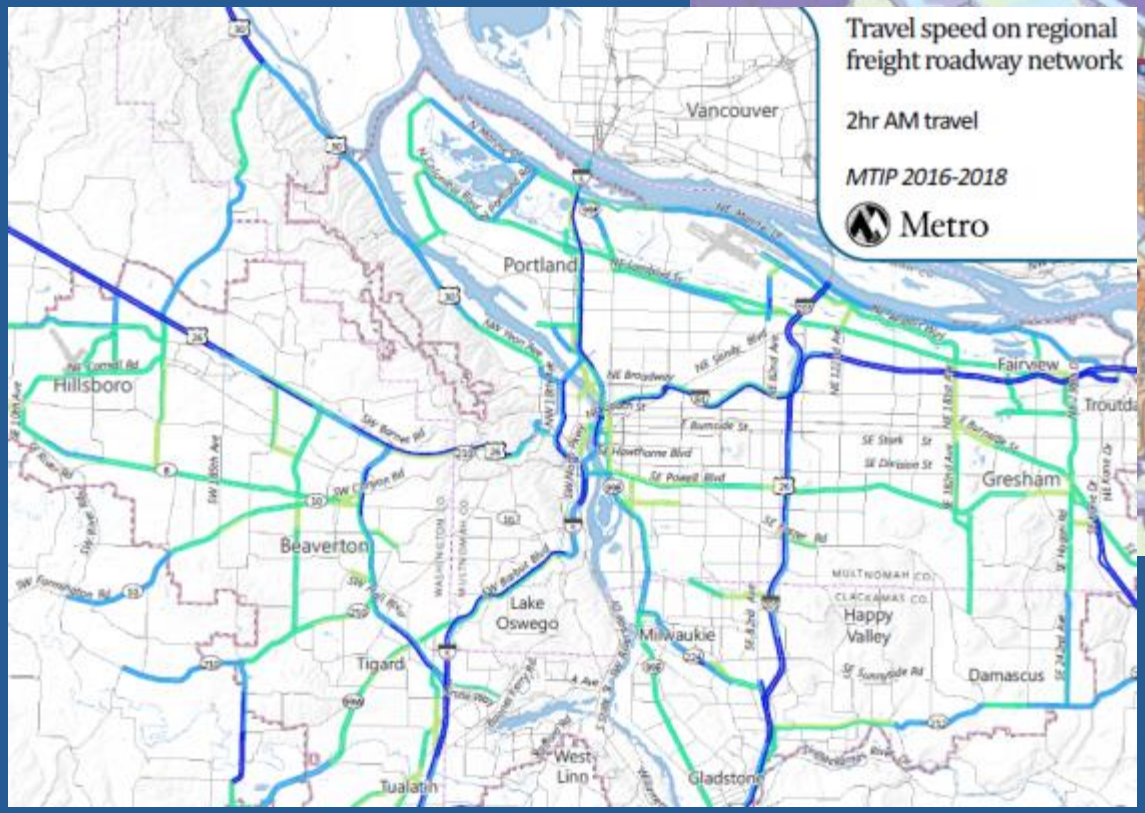
Data Resource Guide: Informing Decisions





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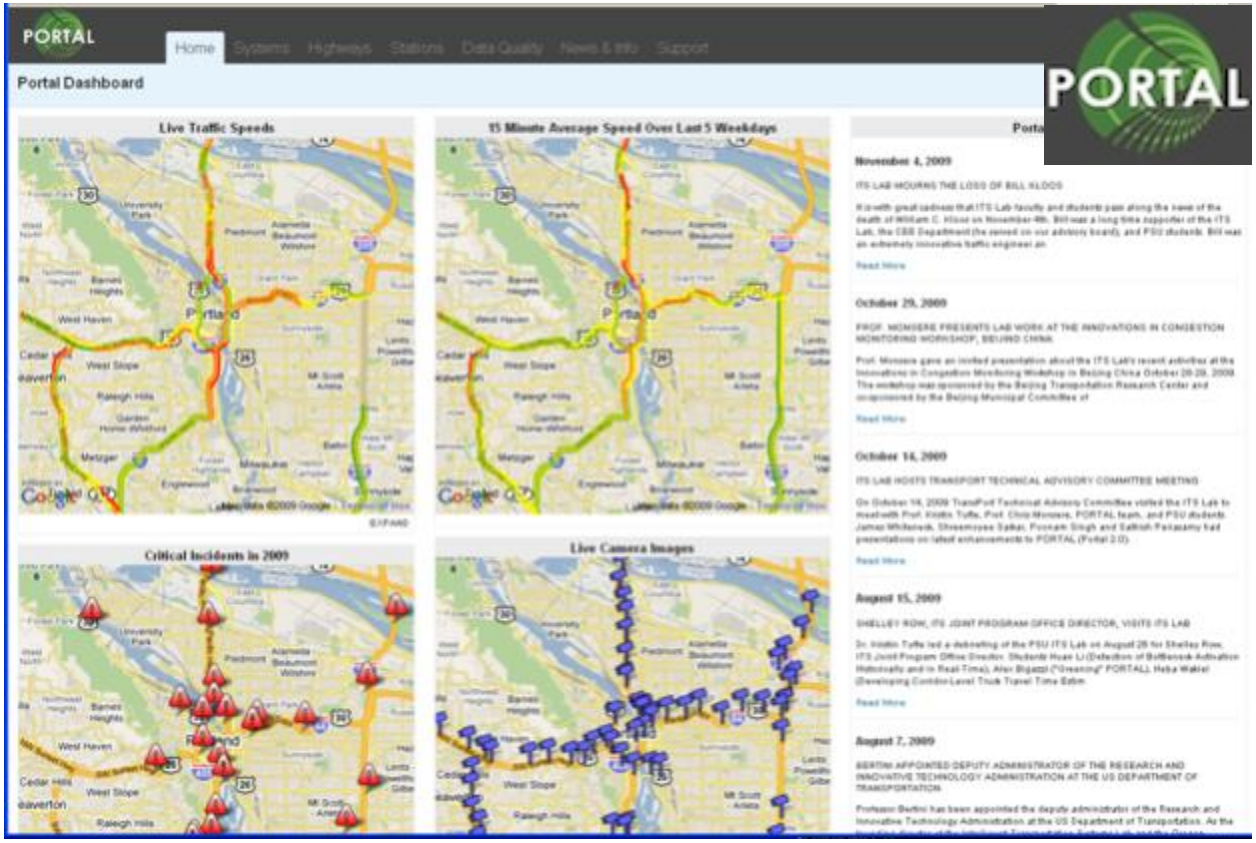
PORTAL data archive supports monitoring

Extensive

- Freeway activity data
- Incident data
- Safety data
- Weigh in-motion data

Growing

- Transit data
- Arterial data
- Bike count data
- Pedestrian count data



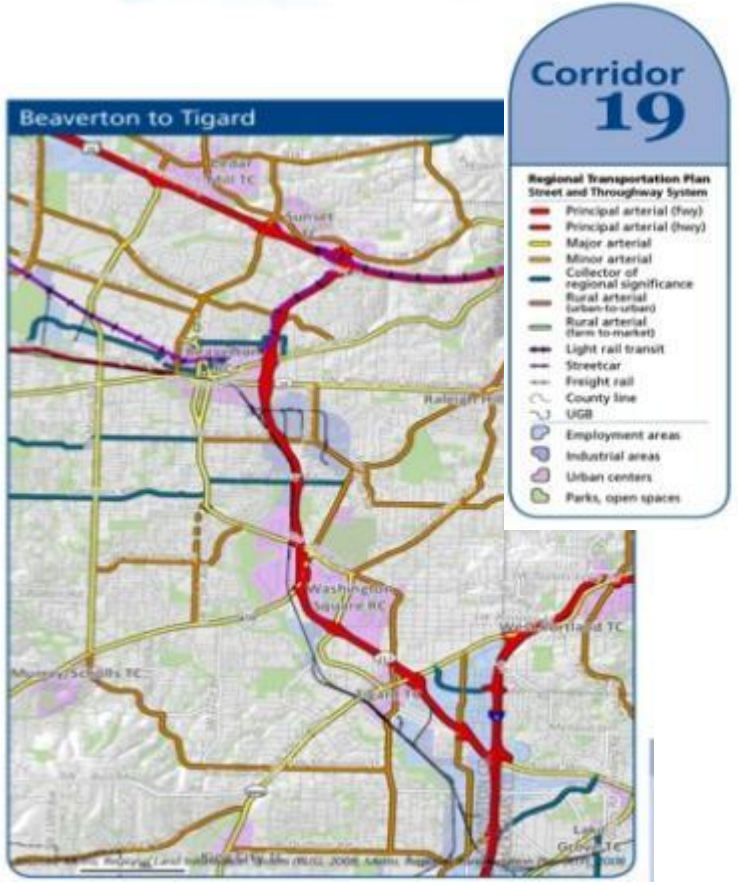
Housed and managed at Portland State University in Portland, OR

http://portal.its.pdx.edu

State of Mobility Corridors report sets baseline

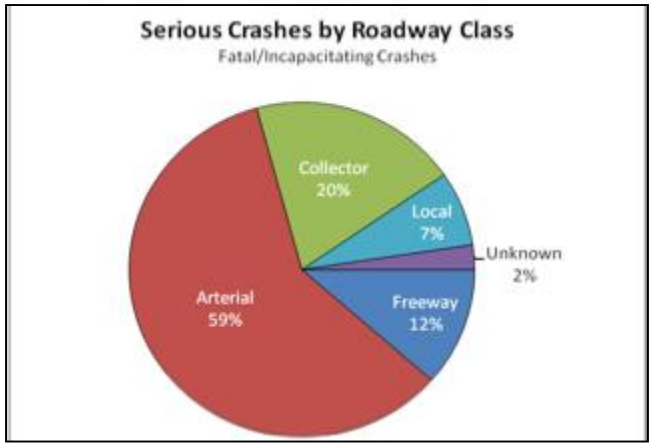
Atlas of 24 mobility corridors displays existing conditions

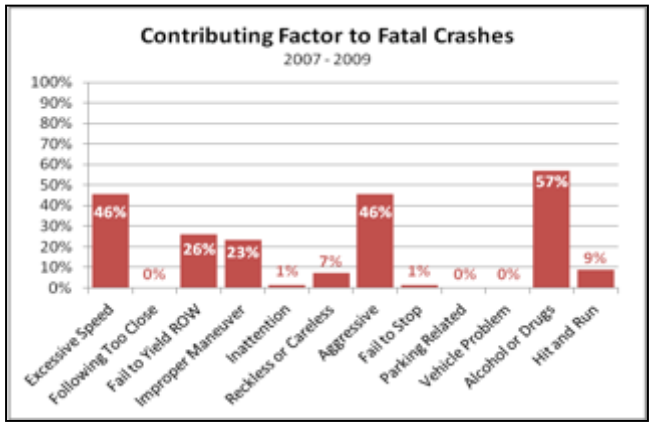
- Transportation facilities
- Planned land uses
- Roadway level-of-service
- Transit coverage/level of service
- Truck volumes
- Bikeway and sidewalk gaps



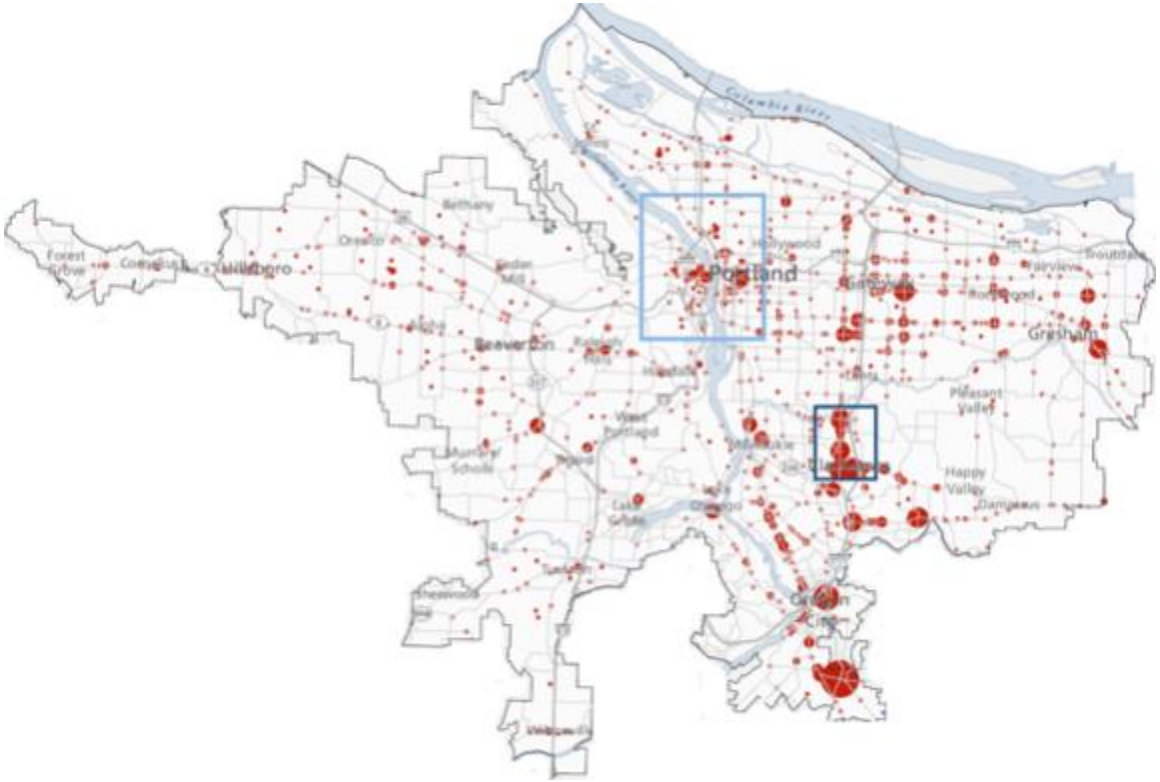
www.oregonmetro.gov/mobilityatlas

State of safety report sets focus for action





Crash hotspots for all modes of travel



Source: Metro State of Safety Report (April 2012)
Report available at www.oregonmetro.gov/regionalmobility

Transportation Demand Management System

Figure 1.16

Individualized Marketing

TMA

Vanpool routes
Rail & frequent bus service
Individualized marketing
TMA_Merge
TMA
HOV lane
County boundary
Urban growth boundary

Participating Employers
More
Fewer

Safe Routes to School Participants - 108
Car Share Vehicles - 1,146
Participating Employers - 2,698

Vancouver
Portland
Central City
Beaverton
Hillsboro
Gresham
Tigard
Tualatin
Sherwood
King City
Lake Oswego
Oregon City
West Linn
Wilsonville
Damascus
Happy Valley
Pleasant Valley
Troutdale
Fairview
Wood Village
Forest Grove
Cornelius
Banks
Aloha
Tanasbourne
Bethany
Cedar Mill
Sunset
Hollywood
Gateway
Rockwood
Washington Square
Murray/Scholls
Multnomah Village
Hillsdale
Milwaukie
Clackamas
Gladstone
Willamette
Raleigh Hills
Cedar Hills
Orenco

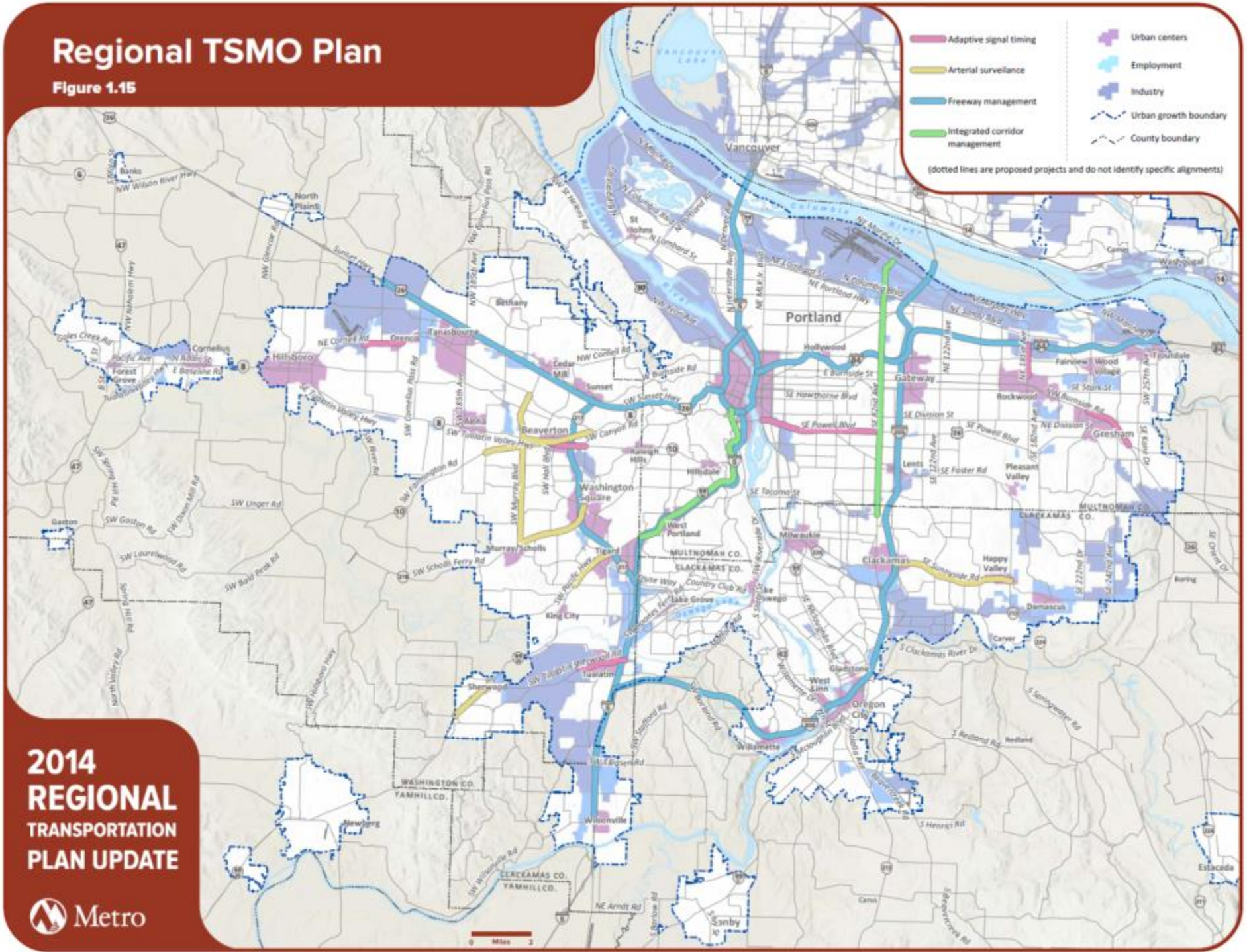
0 2.5 5 Miles

2014 REGIONAL TRANSPORTATION PLAN UPDATE

Metro

Regional TSMO Plan

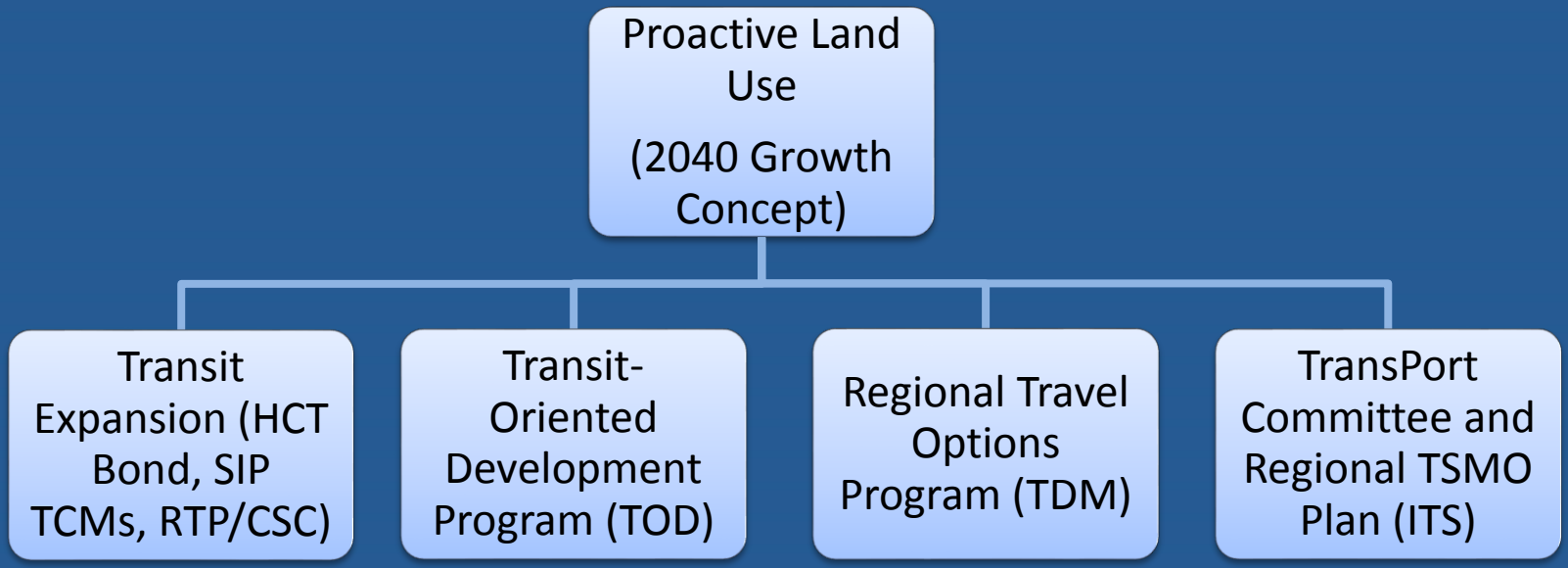
Figure 1.15



2014 REGIONAL TRANSPORTATION PLAN UPDATE

Metro

Collaborative Programmatic Investments



2019-2021 Regional Flexible Funds	$50M	$10M	$8M	$5M

Other Projects That Meet the Six Desired Outcomes:

- Active Transportation/ Complete Streets $37M
- Green Economy/ Freight Investments $12M

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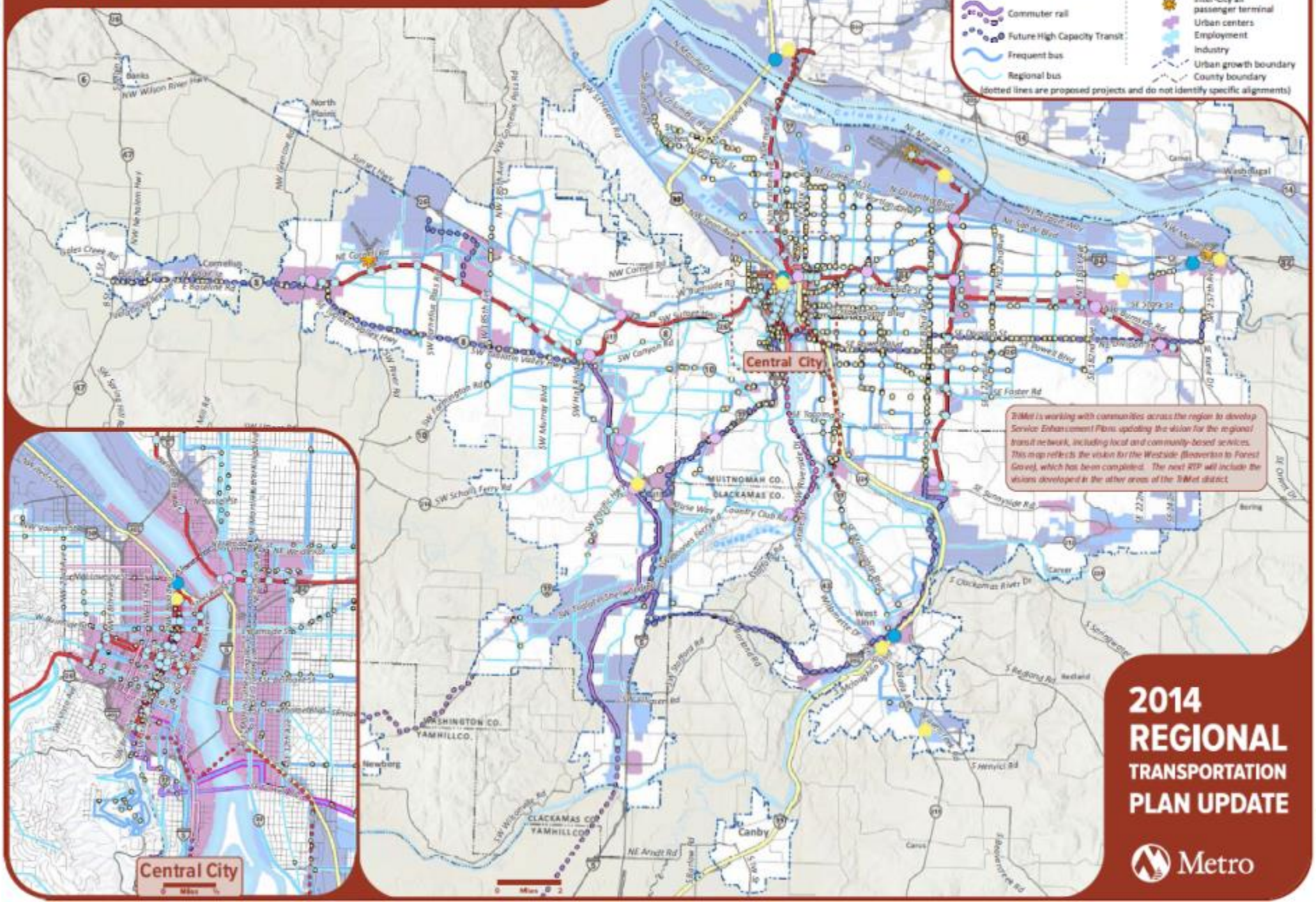
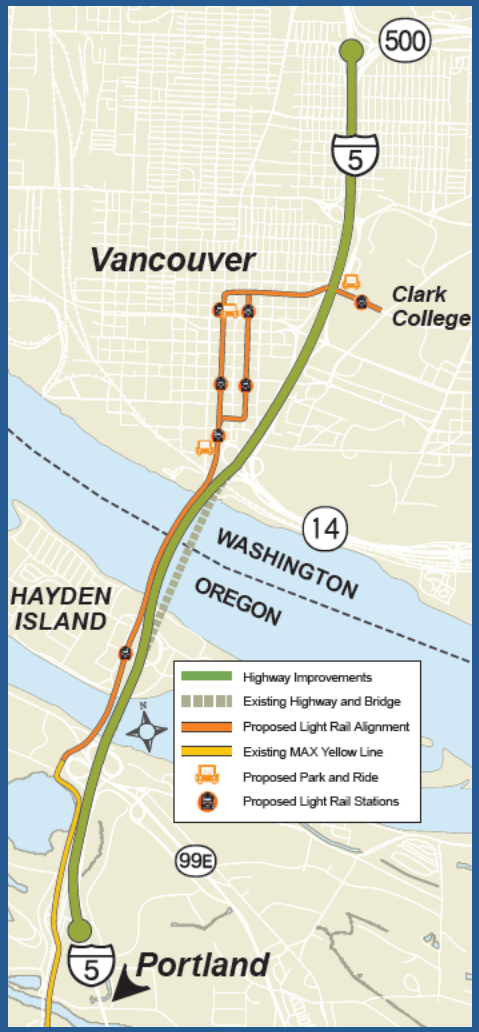
Regional Transit Network

Figure 2.10



Columbia River Crossing – cross-state collaboration – two-by-two



Oregon Department of Transportation

Washington State Department of Transportation

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

Metro

SW Washington Regional Transportation Council

City of Portland

City of Vancouver

TriMet

C-TRAN

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Coordination Case Study: I-5 Bridge Project

- Local, regional and national implications
- Governance:
  - Bi-State Committee
  - Steering Committee

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Thank you! Questions?

Alan Lehto
Director of Planning & Policy
lehtoa@trimet.org

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Questions?

- **Please enter your questions into the Q&A Pod on your screen**
  - The moderator will direct your question to the appropriate presenter.
  - Slides from today' presentation are available in the download pod
- **For more information on the Regional Models of Cooperation initiative, please visit:**
  http://www.fhwa.dot.gov/planning/regional_models/

Thank You!

- **For more information on the Regional Models of Cooperation initiative, please visit:**
  http://www.fhwa.dot.gov/planning/regional_models/

- **Contact:**

Jody McCullough,
FHWA Office of Planning
jody.mccullough@dot.gov
(202) 366-5001