UNDERSTANDING THE ROLE OF MEGA-REGIONS IN ECONOMIC DEVELOPMENT AND TRANSPORTATION

Monday, February 27, 1:45 – 3:00 p.m.
Understanding the Role of Megaregions in Economic Development and Transportation

National Association of Counties Legislative Conference
February 27, 2017
Washington, DC

Efficiency through technology and collaboration
Overview

• Regional Models of Cooperation
• Visualizing Megaregions
• Summaries from Recent Efforts
• Resources
Regional Models of Cooperation

Enhancing Economic Development and Transportation…

…and recognizing mutual needs, goals, and objectives of the geographic region as a whole…
Key Issues Surrounding Megaregions

- Safety
- Freight
- Environment/Air Quality
- Economic Vitality
- Infrastructure/Congestion
Megaregion Boundaries by Population

- Pacific Northwest: 8,779,092
- N. California: 14,249,593
- S. California: 24,230,974
- Arizona: 6,208,441
- Front Range: 4,708,862
- Texas Triangle: 19,034,942
- Central: 7,238,699
- Mid-South: 7,182,776
- Piedmont: 22,661,235
- Florida: 16,533,714
- Northeast: 47,968,105
- Mid-Atlantic: 12,650,673
Metropolitan/Megaregional Clusters in the U.S.

Source: Nelson and Rae, Economic Geography of the United States from Commutes to Megaregions, 2016
Different Boundaries…Same Concept

Source: Nelson and Rae, Economic Geography of the United States from Commutes to Megaregions, 2016
I-10 Corridor Coalition Peer Exchange

Key Points

- A shared vision for the I-10 Corridor Coalition by the Chief Executive Officers from each of the four State DOTs
- Signature of the coalition charter by each of the four State DOT CEOs
- Identify elements of a Concept for Operations (ConOps)
- Action plan and next steps to sustain the coalition

Next Steps

- On Going Dialogue and Coordination
- Follow Up Webinar in Early 2017
Megaregional Focus: Freight and Connected/Autonomous Vehicles

Mid-Atlantic MEGAREGION

Mid-Atlantic Megaregion Freight Flows

Mid-Atlantic Megaregion

Freight Flows

20 MM Tons Annually
50
100
500

Truck
Rail
Water

MPO Jurisdiction

0 25 50 75 100 125 Miles

Mid-Atlantic Megaregion: Key Points + Next Steps

**Key Points**
- Opportunities to Share Data and Resources
  - Truck Parking Access/Information
  - Autonomous Vehicles Technologies
- Freight Shipment Information
  - Goods O/D and Types of Goods Moving
- Impact of Autonomous Trucks on Freight Movement

**Next Steps**
- Identify Megaregion Champions
- Establish and Maintain Regular Communication Forums
- Coordinate Statewide Freight/Long Range Plans and Electronic Screening of Trucks
Megaregional Focus: Freight

Mid-South MEGAREGION
Mid-South Megaregion: Key Points + Next Steps

Key Points
• Agreement among regions on large Federal Projects to increase Competitiveness
• Improving Collaboration between States and MPOs, and Freight Shipment Information
  • Goods O/D and Types of Goods Moving
• Understand various laws impacting technology

Next Steps
• Identify Megaregion Champions
• Establish/Maintain Regular Communication Forums
• Coordinate Statewide Freight/Long Range Plans and Electronic Screening of Trucks
Piedmont Megaregion: Key Points + Next Steps

Key Points
- Understanding Private Sector Needs on Goods Movement and the Impact on Transportation/Economic Development
- Focus on Corridors of Interest
- Implementing steps to Regional Coordination

Next Steps
- Establishing a Piedmont Megaregion Champion
- Using Scenario Planning across the Megaregion
- On-going involvement from the Federal government and continued dialogue

Source: Georgia Tech CQGRD
Planned Megaregions Workshops

• Coming Soon
  – Northeast (PA, NY, NJ, CT, RI, MA, VT, NH, ME)
    • Early June 2017; Location TBD: Topic TBD
  – Central Plains/Midwest (IA, KS, MO, NE)
    • Late June 2017; Kansas City, MO: Topic TBD
  – Midwest (PA, OH, WV, MI)
    • Summer 2017: Connected/Autonomous Vehicles

• Additional Partnership Opportunities
  – Great Lakes Region/Greater Chicago (Summer 2017)
  – Texas (Late Summer/Early Fall 2017)
Implementing Megaregions

- Working through the Political, Economic, and Technical Issues to Advance Megaregions
- Identifying Champions and Field Leaders
- Filling Critical Research Gaps
  - Documentation and Implementation of Best Practices

Source: Georgia Tech CQGRD
FHWA Resources Available

• Megaregions Case Studies and Homepage
  – www.fhwa.dot.gov/planning/megaregions

• Regional Models of Cooperation Homepage
  – www.fhwa.dot.gov/planning/regional_models/
  – Regional Models of Cooperation Handbook- NEW

• Planning Capacity Building website
  – www.planning.dot.gov

• PlanWorks  https://fhwaapps.fhwa.dot.gov/planworks/

• Briefing Book for Transportation Planning Officials
Thank You For Your Attention

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www.fhwa.dot.gov/planning/megaregions
- Business unit of Bi-State Development
- Launched in September 2014
- Executive Director in July 2015
- Support from both sides of the river
BI-STATE DEVELOPMENT – FIVE BUSINESS ENTERPRISES

- Established in 1949 through an interstate compact between Missouri & Illinois
- Can cross local, county and state boundaries to plan, construct, maintain, own and operate facilities and infrastructure
- Authorized to issue revenue bonds, collect fees and receive federal, state and private funds
- Long history as a regional development authority
**Mission** To optimize the region’s freight transportation network through public and private partnerships

**Goals** To produce results that strengthen the St. Louis region by increasing job growth through manufacturing and logistics, and improving the local economy

- **Regional Freight Needs Analysis and Development Plan** - Maximizing funding opportunities through public-private partnerships and improving multimodal capabilities

- **Develop and implement a Marketing Plan** – St. Louis Region is recognized as national and global premier freight hub.
Members include manufacturing, logistics, industrial real estate, workforce development, economic development organizations, academia, all modes of transportation both the IDOT and MoDOT and the East-West Gateway Council of Governments.

- **Needs Analysis and Freight Development Committee**
  *Terminal Rail Association of St. Louis – President Mike McCarthy*

- **Marketing Committee**
  *America’s Central Port - Executive Director Dennis Wilsmeyer*

- **Policy Committee**
  *MO Baptist University Dean of Graduate Studies and MO State Highways Commissioner Dr. Ed Hillhouse*
Public and private sector partnership to produce the multimodal list of projects. Improving the region's overall competitiveness. Supporting economic and new business development

Launched Thefreightway.com website as the premier source of information and point of contact regarding regional logistics capabilities and site selection.

Engaging potential partners throughout the Midwest and into the Gulf of Mexico

Hosting regional meeting on critical freight and logistics opportunities including the USDOT FHA. He now describes our effort as a model for the country. The USDOT Federal Maritime Administration also reviewed our critical maritime assets.

Gaining critical support from congressional delegations from IL and MO

Developed marketing and advocacy plans for the regional effort
ECONOMIC IMPACT – MULTI-MODAL IMPACT - EFFICIENCY

Highest Priority

Merchants Rail Bridge Replacement
- 128-year old rail bridge that spans the Mississippi River
- Connections to six Class I railroads
- Currently carries more than 40 million gross tons annually
- Total estimated project cost = $200 million
- FASTLane Application – MoDOT and Bi-State Development

Interstate 270 Mississippi River Bridge Replacement
- Replacement of two existing structures
- Construction of new structure to accommodate forecasted vehicle/freight flow
- Total estimated project cost = $160 - $175 million
**Highest Priority**

**Interstate 270 Improvements**
- Increase capacity by widening to six lanes from Lilac Ave. to IL-111
- Corridor improvements between Lilac Ave. to Lindbergh Blvd.

**North Riverfront Commerce Corridor Improvements**
- Improve mobility and circulation issues in 3,000 acre multimodal logistics and business district

**Relocate IL Route 3 in St. Clair County, Illinois**
- New construction between East St. Louis and Sauget

**Falling Springs Diversion Loop/IL Route 3 Railroad Bypass**
- Construction of bypass loop from IL Route 3 over A&S railroad in Sauget to eliminate substantial through-traffic delays
Primary criteria included the following:

- **Economic Impact** - How closely does the project align to the Freightway’s goals? Improving the region’s overall competitiveness. Supporting economic and new business development. Create jobs throughout the region.

- **Multimodal Impact** – What is the potential for the project to improve the flexibility, reliability, and connectivity of the region’s freight network?

- **Efficiency Impact** – To what extent does the project increase the efficient use of the St. Louis region’s freight assets? Increasing the speed of freight, lowering the cost to move freight and improved reliability within the system.
Project list was presented to the USDOT FHA Administrator Gregory Nadeau and highest priority projects were discussed with the Administrator and his staff.

Freight Development Committee’s model continues to be promoted as a model for other region’s to follow.

St. Louis Region included with the 24 USDOT Freight Economic Roundtables.

Freight Development Committee was responsible for letters of support for FASTLANE projects submitted by the region.
Freight Development Project List presented, referenced and discussed during critical freight and logistic meeting with key decision makers – IDOT, MoDOT, elected leaders and business leaders

MoDOT will incorporate MO projects with the MO State Freight Plan

October 2016 Freight Development Project List was unanimously endorsed by the East-West Gateway Council of Governments
Developed and implemented a marketing campaign that gains national and global recognition as a premier freight hub.

- **Building a brand and identity** – Digital engagement campaign launched April 2016
- **Becoming recognized as a premier multimodal freight hub** – Local newspapers, KTRS six part freight series, national trade magazines
- **Building ambassadors who can assist in promoting the region’s manufacturing and logistics advantages**
- **Promoting awareness for freight-related economic growth**
- **Building partnerships with other regions** – Port of New Orleans, USDOT FHA and MARAD, Chicago, KC and Minneapolis.
TheFreightway.com is our front door for attracting businesses, investors and real estate speculators to the region.

The fact sheet and comprehensive real estate resource are tools for the entire region.
TOP INDUSTRIAL USER REAL ESTATE SITES
April 27th 2016 – Freight Summit

Keynote speaker – Federal Highway Administration Administrator Gregory Nadeau

“I can’t think of any place in the country whose history is more closely linked with trade than St. Louis. That’s what we are talking about – trade. It’s about commerce. It’s about expanding economic opportunity,”

“Regionalism and this kind of smart strategic thinking. Are leveraging maximum benefits for the people we all serve and creates jobs and opportunities.” USDOT FHWA Administrator Gregory Nadeau – 2016 St. Louis Freight Summit.
September 12, 2016 – U.S.DOT Beyond Traffic Roundtable

Federal Highway Administration Administrator Gregory Nadeau
Maritime Administrator Paul Jaenichen

The St. Louis Region is key to nation’s freight future. If anyone buys anything in the U.S., the odds are good it traveled through St. Louis. U.S.DOT FHWA Administrator Gregory Nadeau

St. Louis Post-Dispatch Editorial Sept. 18, 2016
Expand commerce and trade through containerized cargo growth through **intermodal rail and container on barge**

- Demonstrate COB service is feasible between inland cities in the Midwest and the Port of New Orleans via the Mississippi River system

- Promoting an alternative in the event of supply-chain disruption

- St. Louis Region has three ports with COB capacity

- Coordinate with intermodal logistic companies
  - Barge, 3 party logistic providers and rail and truck modes all need to be working together
  - Working with freight forwarders Unigroup, Ingram, SCF Marine, trucking companies and our shortline railroads -TRRA and Class I railroads.

- The St. Louis Region received two 2016 MARAD Grants to help jump start container on barge
Container on Barge is a hot topic at the Oct. 18, 2016 St. Louis meeting of the U.S. Maritime Transportation System National Advisory Committee (MTSNAC) and spotlighted the St. Louis Regional Freightway’s public – private partnerships to advance COB operations along the inland waterways

Promote the St. Louis Region as a premier logistics and manufacturing hub with superior infrastructure and integrated supply chain advantages.

Theme/Takeaways: Create a business advantage seen in few peer region.

- Very few communities enjoy the depth of competitive advantages we do across multiple modes of transportation and with central access to markets
- The St. Louis Region offers distinct advantages for an integrated supply chain.
  - Infrastructure
  - Access to all modes of transportation
  - Workforce
- The region and its economic development and business groups are working collaboratively to further plan for the future and enhance the area for business.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1949-1950</td>
<td>BSD ratified by Congress and signed into law by President Truman</td>
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<tr>
<td>1954</td>
<td>BSD completed a study of sewer problems that led to the Metropolitan Sewer District</td>
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<td>BSD Regional coordinator of America’s Central Port</td>
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<tr>
<td>1962</td>
<td>BSD and National Park District sign agreement for revenue bonds to design and build the Gateway Arch tram</td>
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<tr>
<td>1963</td>
<td>BSD acquired 15 private transit firms and operated the first St. Louis regional transit system</td>
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<tr>
<td>1964</td>
<td>BSD purchased the bankrupt Downtown St. Louis Airport and is now responsible for nearly $600 mil in economic benefit and 3rd busiest airport in IL</td>
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<tr>
<td>1965</td>
<td>BSD primary force in founding East-West Gateway Coordinating Council of Governments</td>
</tr>
<tr>
<td>2001</td>
<td>BSD purchased the Gateway Arch Riverboats</td>
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GOODS MOVEMENT COLLABORATIVE AND GOODS MOVEMENT PLAN

GOODS MOVEMENT
in the
Bay Area and the Megaregion

A presentation to the 2017 NACo Legislative Conference

Supervisor Scott Haggerty, Alameda CTC Commissioner
Arthur L. Dao, Alameda CTC Executive Director

February 2017
Presentation Overview

• Northern California Megaregion Goods Movement
• Goods Movement in the Bay Area
• Moving Forward
United States Emerging Megaregions

Source: U.S. Department of Transportation, Federal Highway Administration.
Major U.S. Ports Serving Megaregions by Volume

California and Goods Movement

- California’s population: 39.25 million
- 6th largest world economy
- 3 major West Coast ports:
  - Port of Los Angeles
  - Port of Long Beach
  - Port of Oakland
  - Serves Northern California Megaregion
- Extensive National Primary Highway Freight System
- Class 1 Rail operators
Megaregional Challenges

• Housing, land use and jobs
  ▪ Job growth concentrated in Bay Area
  ▪ Housing affordability issues cause an inland population influx

• Transportation
  ▪ Commuters crossing regional boundaries up by 78%
  ▪ Labor market interconnectedness results in increased congestion on megaregional roadways

• Goods movement
  ▪ Passenger rail and freight rail occupy the same tracks
  ▪ Major truck traffic on same roads as commuter traffic
2016 Megaregional Study

- Initiated from Tri-Valley Rising Study
  - 21 counties in the Northern California Megaregion
    - Bay Area
    - Sacramento
    - N. San Joaquin Valley
    - Monterey Bay Area
  - 12.2 million population representing 31.5% of California’s total population
  - Three of the fastest-growing counties in the state
Goods Movement Impact in the Northern California Megaregion

- Nearly $1 trillion in freight flows moving to, from, within and through the megaregion
- Expected to grow to $2.6 trillion by 2040
- Roughly 40% moves entirely within the megaregion
- Each sub region has distinct characteristics and comparative advantages
How Megaregional Freight Flows Are Transported

- Megaregional traffic impacted by congestion
  - Trucks operating at peak commute hours
- Increases in rail use are focal point of goods movement infrastructure changes
  - Bay Area and Port of Oakland efforts are driving change

Megaregion Freight Flows by Commodity

- 2015 Estimates
- Based on Weight

Megaregion Freight Flows by Mode

- 2015 Estimates
- Based on Weight

Source: Freight Analysis Framework (FAF); Analysis: Bay Area Council Economic Institute
Megaregional Study Findings

• Increase economic prosperity
  ▪ Expand economic development efforts across the megaregion
  ▪ Link higher education and national laboratories across the megaregion

• Improve connectivity
  ▪ Increase opportunities for rail passenger services
  ▪ Increase statewide stakeholder engagement across the megaregion for infrastructure funding
  ▪ Expand housing by streamlining development

• Restructure goods movement
  ▪ Create structure for passenger and freight rail to work together
  ▪ Support investments to limit environmental impacts
  ▪ Coordinate advocacy for goods movement funding
Goods Movement and the Bay Area Economy

- Goods movement-dependent industries account for:
  - 1/3 of all regional jobs
  - 1/2 of regional output
- Middle-wage jobs with low barriers to entry
Goods Movement in the Bay Area

- 3rd largest container port on the West Coast; two major cargo airports, four other seaports
- Roughly 1/3 of the region’s jobs are in goods movement-dependent industries
- Two Class I railroads, six National Primary Freight Network routes
- Critical West Coast gateway, providing access to world markets for high-tech manufacturing, high-value agriculture and more
- Supports larger Northern California megaregion
- More than $953 billion in freight flows in Northern California; anticipated 168% growth to $2.6 trillion in value by 2040
- Bay Area provides only access to world markets for some MPOs/RTPAs

Source: Freight Analysis Framework (FAF) 3.5 Provisional Data and Forecasts.
Alameda County: Hub of Bay Area Goods Movement

- 21% of Bay Area’s population; 33% of employment in freight transportation and warehousing
- Critical economic and job diversity in high cost-of-living region
- Most of region’s critical goods movement infrastructure is in Alameda County
- Dedicated self-help funds for freight
Goods Movement Plans | BAY AREA AND COUNTY PLAN OVERVIEW

• Coordinated regional and county goods movement plans
• Performance-based technical analysis
• Key projects and programs to improve freight efficiencies

Vision
The Goods Movement system will be safe and efficient, provide seamless connections to international and domestic markets to enhance economic competitiveness, create jobs, and promote innovation while reducing environmental impacts and improving local communities’ quality of life.

Goods Movement Plans

Coordinated regional and county goods movement plans
Performance-based technical analysis
Key projects and programs to improve freight efficiencies

Vision
The Goods Movement system will be safe and efficient, provide seamless connections to international and domestic markets to enhance economic competitiveness, create jobs, and promote innovation while reducing environmental impacts and improving local communities’ quality of life.

Innovation
Economic Prosperity
Interconnected/Multimodal
Quality of Life
Safe, Reliable
Bay Area and County Goods Movement Plans

THREE OPPORTUNITY CATEGORIES

Sustainable Global Competitiveness

- Port of Oakland warehousing, rail terminal capacity and internal circulation improvements
- Regional rail access capacity and grade-crossing improvements
- Emissions reduction, community benefit, workforce development programs

Smart Operations and Deliveries

- Port night/weekend gates and downtown off-peak delivery programs
- Port truck appointment system
- ITS and Integrated Corridor Mobility projects
- Zero-emission truck demonstrations

Modernized Infrastructure

- Interchange improvement projects
- Industrial rail spurs
- Truck parking
Port of Oakland | OAKLAND ARMY BASE

Source: City of Oakland, Prologis development rendering.
New Approach to Rail/Port Operation: Transloadding and Rail in Oakland

Overall strategy to eliminate 1,280 truck trips per day on I-580 and I-880

IPI Import

Asia

Oakland

Chicago

Transload Import

Today

Asia

Oakland

Central Valley

Chicago

Transload Import

Sustainable Global Competitiveness

Asia

Oakland

OHIT

Chicago
Freight Funding Opportunities

Existing sources

• FAST Act
  ▪ National Highway Freight Program (formula program): CA share approximately $582 million over five years
  ▪ FASTLANE Program (competitive program): $4.5 billion nationwide over five years

• County Sales Taxes (e.g., Alameda County Measure BB)
  ▪ Voter-approved $250 million per year with specific goods movement category

Potential new sources

• Cap and Trade
• County sales taxes
• New state funding packages
• Potential future bridge tolls
Moving Forward

- Multi-jurisdictional institutions to coordinate strategies in packages

- High level negotiations with RRs and coordination of freight with inter-regional transit maximizing combined benefits

- Aggressively pursue new funding (especially for non-highway), align with regional priorities

- Maintain organized structure for information-sharing and advocacy
Moving Forward: Northern California Megaregional Working Group

- Advisory council formed to address common policy issues across MTC, Sacramento Area Council of Governments (SACOG), and San Joaquin Council of Governments (SJCOG) regions
- Issues include goods movement, jobs/housing imbalances, regional passenger rail, economic development and RTP/SCS coordination
- Study timeline: summer 2016 through summer 2018
Thank You