SESSION ONE

10:00 a.m. – 11:00 a.m.

What is a megaregion? Images of the earth at night give us a glimpse at what the world’s megaregions look like. Planners and engineers might talk about a region’s economic and transportation interconnectedness with other regions. Megaregions can also be defined in terms of environmental connectivity, especially when discussing water and air quality. Regardless of the perspective, how we define a megaregion should help illuminate our interconnectedness and allow us to identify, and potentially quantify, the impact that decisions made in traditionally isolated regions have on other regions. This session provides several perspectives on megaregional issues and opportunities we will need to consider and cooperate on during the development of our next generation of long-range plans.

DISCUSSION QUESTIONS:

• How do you define a megaregion?
• How do you plan to incorporate a megaregional approach into future plans?
• What megaregional issues do you think our agencies will need to coordinate on?

MEGAREGIONS, ECONOMICS AND INFRASTRUCTURE NEEDS

Credit: 2016/NASA's Marshall Space Flight Center/CC BY-NC 2.0
PRESENTATIONS

FHWA PERSPECTIVE ON MEGAREGIONS
Mary Forlenza, Federal Highway Administration

Mary Forlenza has worked in transportation since 1990. As System Planning and Performance Team Leader for FHWA’s Wisconsin Division, she leads the Planning, Environment, Realty and Civil Rights disciplines, and represents the Division on freight issues.

Previously, Mary was Wisconsin Department of Transportation’s Local Programs and Finance Chief, managing $600 million annually in federal and state funds across 14 programs for local governments. She lives in Madison, Wisconsin and is the proud mom of two daughters who are 19 and 21.

WISDOT PERSPECTIVE ON MEGAREGIONS
Donna Brown-Martin, Wisconsin Department of Transportation

Donna Brown-Martin is currently serving as Director for the Bureau of Planning and Economic Development at WisDOT. She has held various leadership positions throughout her career with WisDOT, including Southeast Region Planning Chief and Director for the Bureau of Transit, Local Roads, Railroads, and Harbors.

KEEPING GREATER CHICAGO’S ECONOMY MOVING
Elizabeth Irvin, Chicago Metropolitan Agency for Planning

Elizabeth Irvin is a senior planner at the Chicago Metropolitan Agency for Planning. At CMAP, Elizabeth researches and analyzes issues related to transportation, the environment, and inclusive growth. Recently, she has been working on research and strategy development for ON TO 2050, the long-range comprehensive plan for the Chicago region, particularly changing travel behaviors, emerging transportation technologies, and transportation system resilience.

Elizabeth has a Masters in City Planning from MIT and a Bachelor of Arts in English and music from Williams College. She has also worked on federal and regional transportation and environmental policy in Washington, D.C. and Massachusetts. Originally from Cleveland, Ohio, she has enjoyed returning to and working in the Great Lakes region.

FREIGHT AND PORT PERSPECTIVE
Ron Chicka, Duluth-Superior Metropolitan Interstate Council

Ron has been with the MIC since 1995. The full range of the MIC’s transportation activities—from pedestrians and bike travel to train, truck and air travel to roadway planning—continues to be rewarding and stimulating.

Ron has a B.S. in Geography from the University of Wisconsin-Madison and a Masters Degree in Urban Planning from the University of Kansas. He is a Certified Planner and also serves on a number of national transportation related committees. As MIC Director he is responsible for overall administrative functions and project oversight, including:

- Development of the MIC Work Program and budget
- Consultation with local, state and federal officials on transportation activities
- State and federal legislation review
- Progress reports to MIC and ARDC Boards, participation on project steering committees

Outside of work, he enjoys many outdoor activities including travel, golfing, biking, and cross-country skiing. A favorite pastime is competing in combined biking and running events (duathlons) throughout Wisconsin and Minnesota over the summer months.
"The world's mega-cities are merging to form vast "mega-regions" which may stretch hundreds of kilometers across countries and be home to more than 100 million people."

Source: UN-Habitat, (2010)

Mary Forlenza
System Planning & Performance Team Leader
Federal Highway Administration
Wisconsin Division
By 2015, twenty-six cities in the world are expected to have populations of 10 million or more. To feed a city of this size today - for example, Tokyo, Sao Paulo or Mexico City - at least 6,000 tonnes of food must be imported each day.

Megacities in 2015 with 10,000,000 people or more Tokyo is the largest metropolitan area.

Megaregions

“The neighborhood is a critical building block for a city, cities are now the building blocks for megaregions which in turn are the new economic unit in world markets.”

Ross, Catherine. Megaregions: Planning for Global Competitiveness, Island Press, 2009

Source: UN Population Fund

From: Steve Esrey

Mary Forlenza
Federal Highway Administration
Megaregions represent a new and potentially beneficial context for American transportation planning and a new tool appropriate for national and global environments.

### Emerging Megaregions

#### Why Megaregion Matters

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<tbody>
<tr>
<td>Megaregion</td>
<td>25%</td>
<td>75%</td>
<td>76%</td>
<td>60%</td>
<td>69%</td>
<td>87%</td>
<td>90%</td>
</tr>
<tr>
<td>Non-megareg</td>
<td>75%</td>
<td>25%</td>
<td>24%</td>
<td>20%</td>
<td>52%</td>
<td>13%</td>
<td>10%</td>
</tr>
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</table>
The Midwest Chicago Megaregion

Midwest Chicago Megaregion: A Key National Economic Center

- One of the **most populous** megaregions
- Class I Railroads
- High density of development patterns and economic activities
- Areas within the megaregion are connected by multimodal infrastructure

<table>
<thead>
<tr>
<th>State</th>
<th>2015 GDP (billions)</th>
<th>Share</th>
<th>Largest MSA</th>
<th>2015 GMP (billions)</th>
<th>Share</th>
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<tbody>
<tr>
<td>Illinois</td>
<td>772</td>
<td>4.32%</td>
<td>Chicago-Naperville-Gurnee, IL-WI</td>
<td>641</td>
<td>3.57%</td>
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<tr>
<td>Indiana</td>
<td>330</td>
<td>1.86%</td>
<td>Indianapolis-Carmel-Anderson, IN</td>
<td>134</td>
<td>0.75%</td>
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<tr>
<td>Iowa</td>
<td>176</td>
<td>0.98%</td>
<td>Des Moines-West Des Moines, IA</td>
<td>466</td>
<td>0.26%</td>
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<td>Michigan</td>
<td>471</td>
<td>2.69%</td>
<td>Detroit-Warren-Dearborn, MI</td>
<td>246</td>
<td>1.37%</td>
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<tr>
<td>Minnesota</td>
<td>327</td>
<td>1.82%</td>
<td>Minneapolis-St Paul-Ham Lake-Maple Grove, MN</td>
<td>249</td>
<td>1.39%</td>
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<td>Missouri</td>
<td>280</td>
<td>1.43%</td>
<td>St. Louis, MO-IL</td>
<td>155</td>
<td>0.87%</td>
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<tr>
<td>Wisconsin</td>
<td>302</td>
<td>1.68%</td>
<td>Milwaukee-Waukesha-West Allis, WI</td>
<td>102</td>
<td>0.57%</td>
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<tr>
<td>US Total</td>
<td>17,925</td>
<td>100%</td>
<td>US Total</td>
<td>17,925</td>
<td>100%</td>
</tr>
</tbody>
</table>
E-Commerce: A Leader

Challenges

• Infrastructure repair and maintenance
• Asset management
• Capacity challenge (e.g. freight facilities)
• Megaregion governance
• Sustainability

Mary Forlenza
Federal Highway Administration
Opportunities

- Technologies (e.g. Intelligent Transportation Systems)
- Creation of multimodal freight terminals
- Infrastructure upgrading due to the Panama Canal expansion
- Passenger rail upgrading
- Investment in transit and inter-city connection
- Public action
- Redevelopment of industrial bases

National Highway System
Class I Railroads

Congestion Impacts

Mary Forlenza
Federal Highway Administration
Transportation Infrastructure and Gateways

- Highways
- Railroad
- Airports
- Seaports
- Border Crossings

Planning in Context

<table>
<thead>
<tr>
<th>Coordination</th>
<th>Megaregions are here</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Infrastructure</td>
<td>Gateways and their connections cross modes and form a system.</td>
</tr>
<tr>
<td>Demand Disruptions</td>
<td>From e-commerce to telecommuting, travel demand disruptions will continue.</td>
</tr>
<tr>
<td>Energy</td>
<td>Energy is making progress, starting in cities and megaregions.</td>
</tr>
<tr>
<td>Modes</td>
<td>Modal assumptions will change, under impetus of automated technology.</td>
</tr>
</tbody>
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Mary Forlenza
Federal Highway Administration
Mary Forlenza
Federal Highway Administration
Chicago Metropolitan Agency for Planning (CMAP)

- Established: 2005
- Area:
  - Seven counties
  - 284 municipalities
  - 2.6 million acres

- CMAP’s Vision: A unified region with enviable quality of life and economic vitality for all.
KEEPING GREATER CHICAGO’S ECONOMY MOVING

Elizabeth Irvin
Chicago Metropolitan Agency for Planning
KEEPPING GREATER CHICAGO’S ECONOMY MOVING

Elizabeth Irvin
Chicago Metropolitan Agency for Planning
Collaboration at a megaregional scale

- Quarterly meetings between Executive Directors
- Representatives on Transportation Committee
- Construction coordination
- Knowledge sharing
- Specific projects (ex: Midwest Regional Rail Planning Study)

Elizabeth Irvin
Chicago Metropolitan Agency for Planning
## Topics of study
This table shows how topics for study relate to the four GO TO 2040 themes. Please note that ON TO 2050 will likely not be organized into these four themes.

<table>
<thead>
<tr>
<th>Livable Communities</th>
<th>Human Capital</th>
<th>Efficient Governance</th>
<th>Regional Mobility</th>
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<tbody>
<tr>
<td>Placemaking</td>
<td>Economic Indicators</td>
<td>Access to Information</td>
<td>Congestion Pricing</td>
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<tr>
<td>Livelihood</td>
<td>Economic Innovation</td>
<td>Tax Policy</td>
<td>Increased Transportation</td>
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<td>Park Access</td>
<td>Regional Economic Competitiveness</td>
<td>Coordinated Investment</td>
<td>Capital Projects</td>
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<tr>
<td>Water Resources</td>
<td>Industry Clusters</td>
<td>Consolidation</td>
<td>Freight</td>
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<tr>
<td>Public Health</td>
<td>Inclusive Growth</td>
<td>Community Capacity</td>
<td>Transit</td>
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<tr>
<td>Housing Affordability and Supply</td>
<td>Economic Resilience</td>
<td>Shared Services</td>
<td>Performance-based Programming</td>
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<tr>
<td>Climate Mitigation</td>
<td>Transportation Revenue</td>
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<tr>
<td>Energy</td>
<td>Asset Management</td>
<td></td>
<td></td>
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<tr>
<td>Green Infrastructure</td>
<td>Highway Operations</td>
<td></td>
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<tr>
<td>Retention/Infill</td>
<td>Transit Modernization</td>
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<tr>
<td>Lands in Transition</td>
<td>Transportation Technology</td>
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<tr>
<td>Stormwater</td>
<td>Climate Resilience</td>
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*Source: Chicago Metropolitan Agency for Planning*
Next Steps and Opportunities

• Performance measures
• Freight planning
• Inter-city transit
• Emerging transportation technologies
• Water quality and conservation

Elizabeth Irvin
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Ron Chicka
Duluth-Superior MIC
Director
Monday, Oct 30, 2017

Ron Chicka
Duluth-Superior Metropolitan Interstate Council
Megaregion Definition:
Networks of metro areas that share economic, environmental and cultural features, as well as infrastructure and geographic connections.

MPOs of the Great Lakes

Ron Chicka, Director
Duluth-Superior Metropolitan Interstate Council

Ron Chicka
Duluth-Superior Metropolitan Interstate Council
Duluth-Superior Metropolitan Interstate Council (MIC)

- 25% of all freight trains, 50% all intermodal trains thru Chicago
- 30,000 Truck s counts per day
- Air Cargo hub
- Only Direct maritime connect between Great Lakes and Mississippi River

Ron Chicka
Duluth-Superior Metropolitan Interstate Council

- MPOs of the Great Lakes

STATS - TRENDS
- 16.3% of VMT in Megaregion; 35% of US Pop (43M)
- 80% of Vehicle delay in 4 areas (Chi, MSP, Det, St Louis)
- Freight to inc 42% across all modes by 2040
- Underinvestment in freight system
Great Lakes shipping has enormous capacity to move additional freight compared to congested roads and rail.
CN Rail Line moves a large amount of freight from Prince Rupert, British Columbia to Chicago and Memphis.
Wind Turbine Components

- Most components manufactured overseas arrives by ship and leaves by truck
- Some components manufactured in North Dakota bound for Europe

Oil Sands Alberta, Canada

Ron Chicka
Duluth-Superior Metropolitan Interstate Council
Duluth-Superior Port Infrastructure Investment

- Connects the port to three coasts — Atlantic, Pacific and the Gulf of Mexico — via CN's rail network.

Ron Chicka
Duluth-Superior Metropolitan Interstate Council
**Duluth-Superior Port Transportation Assets**

- Largest Great Lakes port by tonnage – 35 million tons of cargo/year
- 1,000 vessel visits/year
- 4 Class 1 railroads
- 3 major highway systems
- 30 trucking companies and logistics providers
- >$2 billion in multimodal freight moved annually

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**Harbor Technical Advisory Committee (HTAC)**

"Imagine…a committee that actually gets work done"

- Adolf Ojard,
  Duluth Seaway Port Authority

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**Ron Chicka**

*Duluth-Superior Metropolitan Interstate Council*
HTAC Members

Stakeholders from:

Government

Natural Resources

“Working Port” Operations

Government

- Cities of Duluth & Superior
- St. Louis & Douglas County
- MnDOT, WisDOT
- Duluth Seaway Port Authority
- WLSSD
- US Coast Guard
- US Army Corps of Engineers

Natural Resources

- MnDNR, WisDNR
- MPCA
- MN and WI Sea Grant Programs
- US Fish & Wildlife Service
- USDA Natural Resources Conservation Service
- St. Louis River Alliance
- Save Lake Superior Assoc.
- Izaak Walton League

“Working Port”

- Shipping/docks
- Dredging
- Pilot & harbor services
- Cargo/warehousing
- Iron ore
- Grain
- Coal
- Rail
- Marinas/Recreation

HTAC Diverse Issues

- Public Interest
- Private Business
- Multimodal Freight
- Habitat Preservation/Restoration
- Regulatory Oversight–Maritime
- Regulatory Oversight–Environmental
- Infrastructure Investments
- Scientific Research
- Economic Development
- Tourism / Recreation
- Legislative Initiatives
- Citizen Advocacy

“Silos” of separate and competing interests?

Ron Chicka
Duluth-Superior Metropolitan Interstate Council
HTAC as a Model for Stakeholder Collaboration

- MIC (MPO) provides a setting for multiple stakeholders to address port- and harbor-related issues
- To promote the harbor’s economic and environmental importance to the region

HTAC

“...a committee that actually gets work done”

Subcommittees (Working Groups)

- Dredging
- Brownfield Redevelopment
- Duluth-Superior Port Land Use Plan
- Great Lakes Ports Advocacy
- Landside Port Access Study
- Navigation
- Open Water Mitigation

Ron Chicka
Duluth-Superior Metropolitan Interstate Council
HTAC Members
Stakeholders
Government
Key Issues
• Land use and zoning
• Economic development
• Port security
• Inter-agency coordination
• Stakeholder participation

HTAC Members
Stakeholders
Harbor/Estuary Issues
• Environmental remediation
• Habitat restoration
• Legacy contamination
• Invasive species
• Public trust doctrine

Ron Chicka
Duluth-Superior Metropolitan Interstate Council
### HTAC Key Accomplishments

- Erie Pier Management Plan
- Duluth-Superior Port Land Use Plan
- Duluth-Superior Truck Route Study

### Project Characteristics

- Inter-agency coordination
- Leverage multiple funding sources
- Spur new possibilities
- Encourage public-private partnerships

### New Paradigm for Dredged Material Management

**BEFORE**
- 2003 Confined Disposal Facility

**AFTER**
- 2010 Processing and Reuse Facility

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**Ron Chicka**

*Duluth-Superior Metropolitan Interstate Council*
**Duluth-Superior Port Land Use Plan**

A guide for public and private development of lands and properties along the ‘working waterfront’ of the Duluth-Superior Port.

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**Future Land Use Map**

A guide for Duluth and Superior to incorporate into their Comprehensive Plans, by:

- Prioritizing maritime uses for lands adjacent to the shipping channel;
- Maintaining industrial lands with road and rail access for compatible maritime uses;
- Retaining established commercial, residential, recreational and natural areas.

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**Ron Chicka**

*Duluth-Superior Metropolitan Interstate Council*
Questions? Comments?

Duluth-Superior Port and Freight Planning
Ron Chicka
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218.629.7506
MIC Director
Metropolitan Interstate Council

Comments? Questions?

Duluth-Superior Harbor Technical Advisory Committee:
A Model for Successful Stakeholder Planning and Coordination

Ron Chicka
Duluth-Superior Metropolitan Interstate Council