



TRANSPORTATION ANALYSIS AND OPPORTUNITIES

Identifying Gaps and Opportunities in the Intermountain West

August 28, 2015

PROJECT GOALS

- **Conduct outreach** to the MPOs, TMAs, State DOTs and other key stakeholders to **identify needs and potential gaps** related to **transportation and data resources**
 - **Develop GIS Common Operating Vision/Platform** for easier data information sharing
 - **Align expectations** for a long-range vision to move people and goods in the Region
 - **Develop Report with Risk Register**
-

EXPEDITING PLANNING AND ENVIRONMENTAL REVIEW OF KEY GLOBAL TRANSPORTATION PROJECTS IN THE INTERMOUNTAIN WEST REGION

Collaboration on long-term strategies for multimodal transportation will help the region:

- Connect communities, trade hubs, airports, roadways and railroad
- Enhance the economic vitality of communities connected and served by the corridors
- Improve safety, travel time and reliability for the movement of people and goods throughout the region
- Move goods and people
- Compete for international trade



SCOPE OF WORK

The initial geographic region of focus for this proposal is: the international border crossing at Nogales Arizona to Phoenix Metropolitan Area, to Las Vegas, Nevada, with potential expansion to include the existing I-15 and coordination efforts with the designated **Interstate 11**, ultimately north to the Canadian Border. To the extent feasible, this proposal will support multi-modal transportation within the broader intermountain region to include major north-south and east-west corridors.

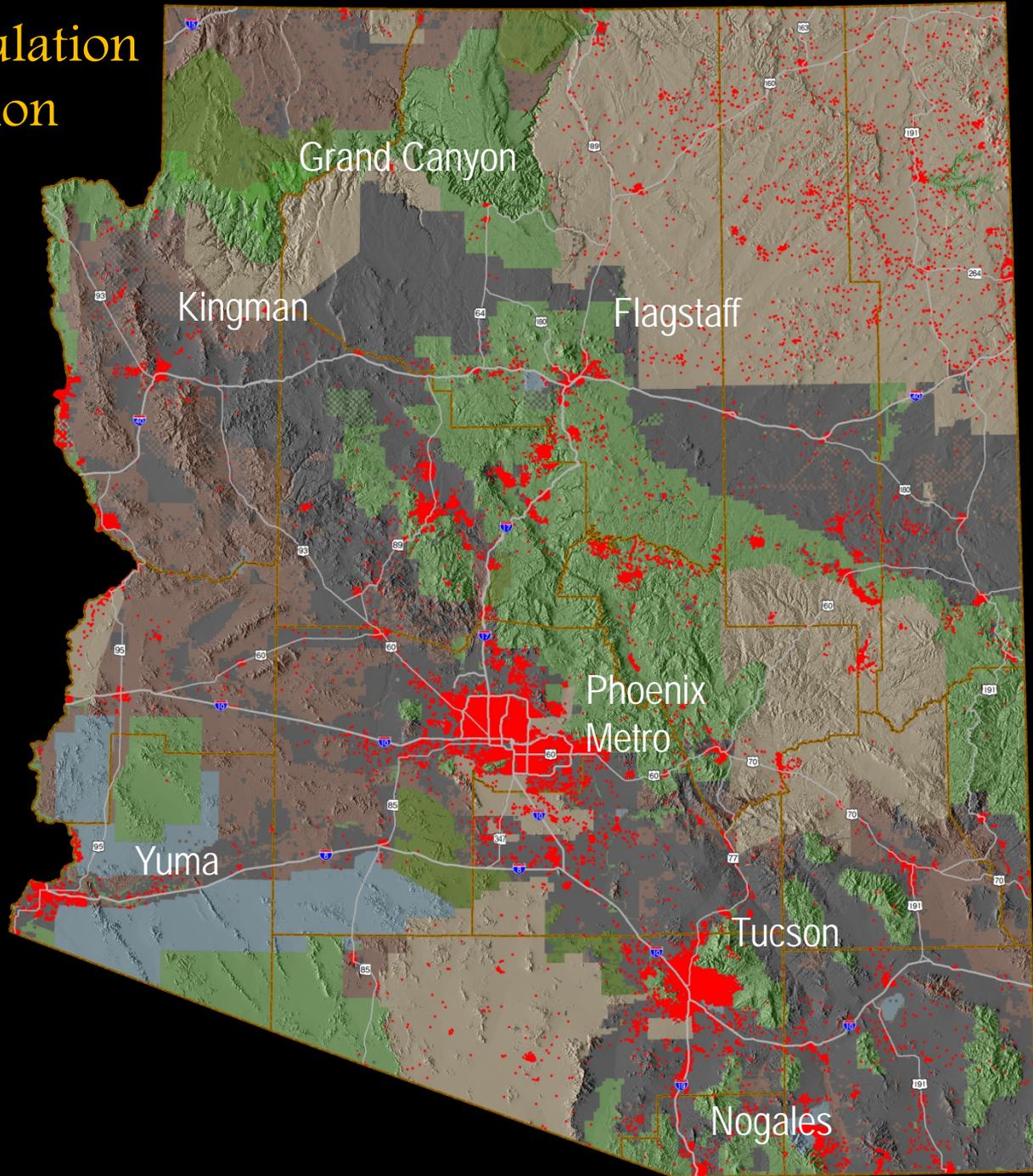
REPORT WITH RISK REGISTER (FROM SOW)

- Intermountain Transportation vision that will focus on moving people and freight efficiently
- Constraints and Opportunities (e.g. natural and cultural resources, work force, etc.)
- Stakeholder expectations, issue priorities, areas of commonality, potential areas of conflict, and methods of reducing or resolving areas of conflict
- GIS data layers that identify transportation focus and potential areas of conflict and provide useful analytic tools (e.g. red dot map of status and trends). Will establish methods and processes for maintenance and conflation of datasets to a common platform.
- Public engagement and communication best practices and lessons learned from this effort

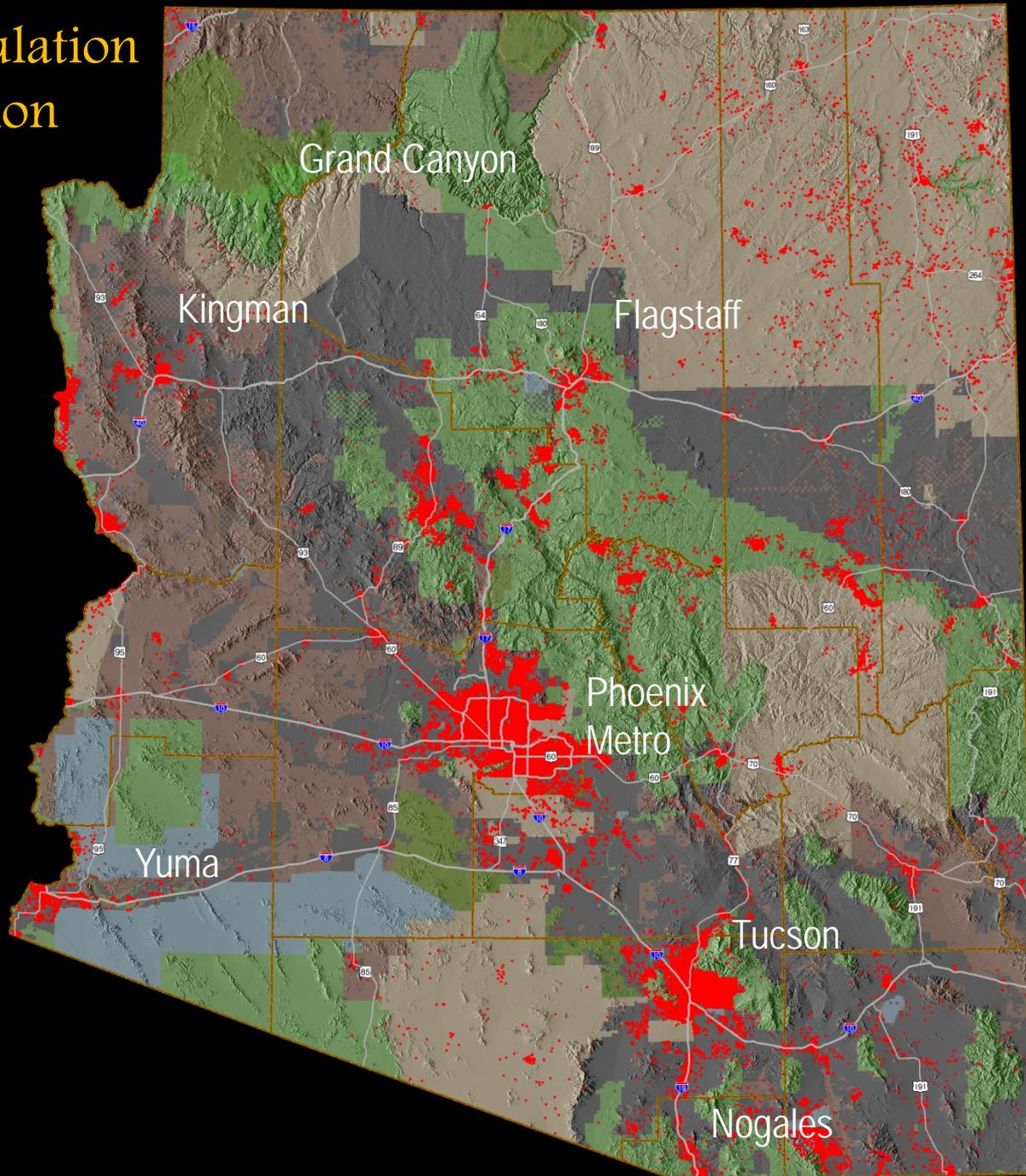
SCOPE OF WORK

- **Number of Miles** considered in risk register to identify potential risks to transportation projects
 - ~450 miles (initial geographic focus is international border crossing at Nogales to Las Vegas (via Phoenix))
 - **Proof of concept for broader Intermountain region.** With improvements, analyze whether or to what extent this will take pressure off I-5 and other key routes, thereby assisting with moving goods and people

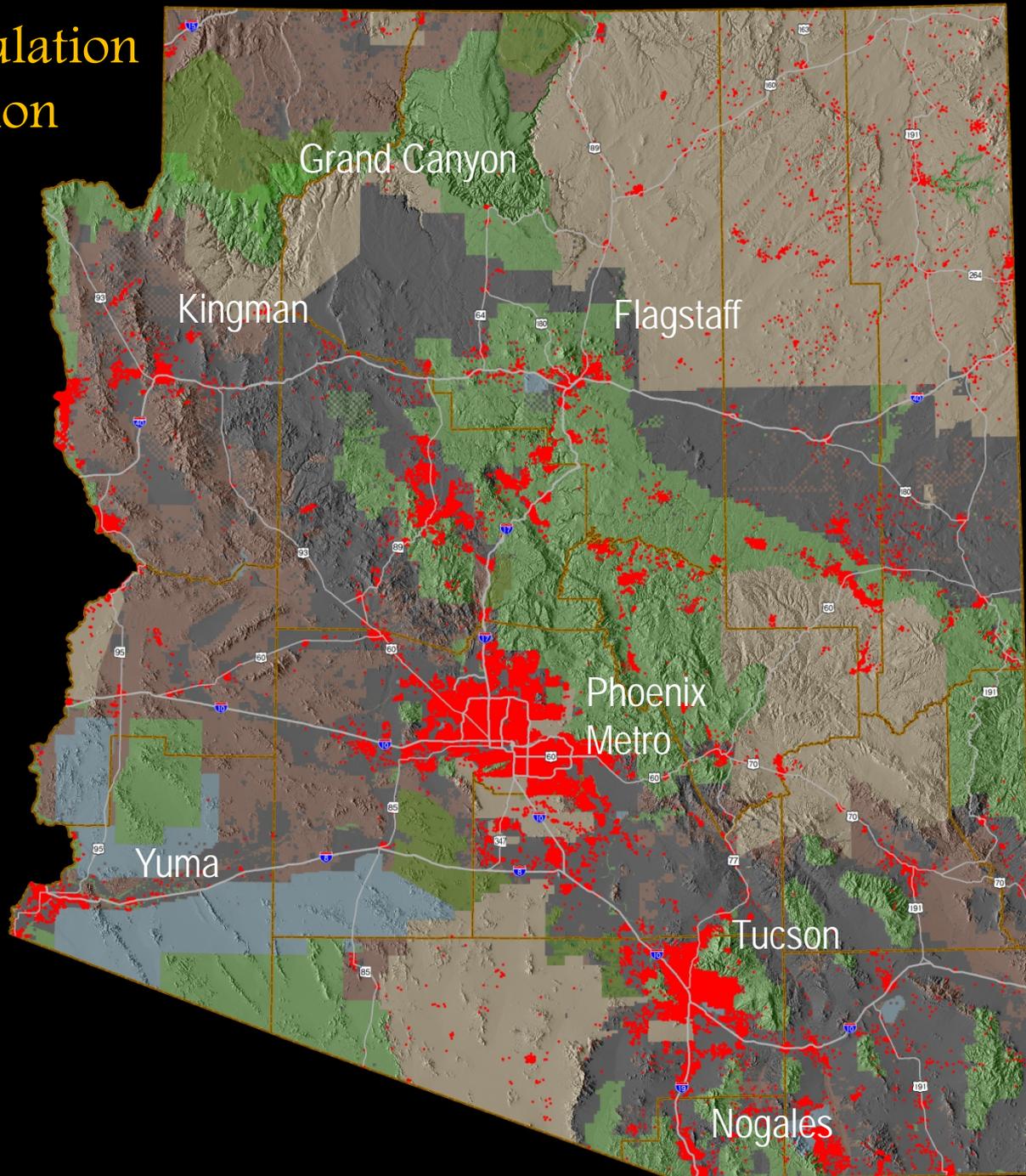
1990 – Population
3.7 Million



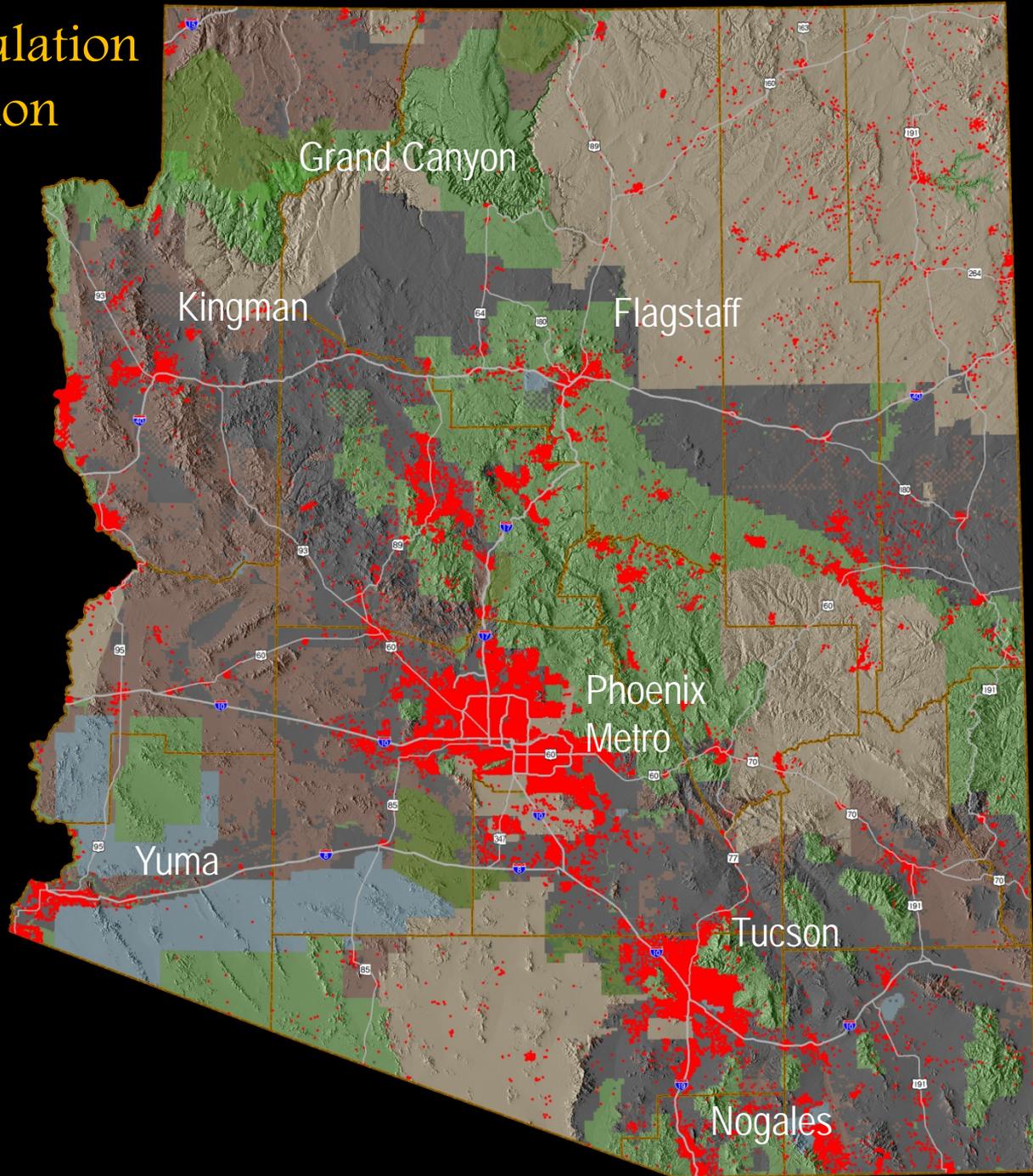
2000 – Population
5.1 Million



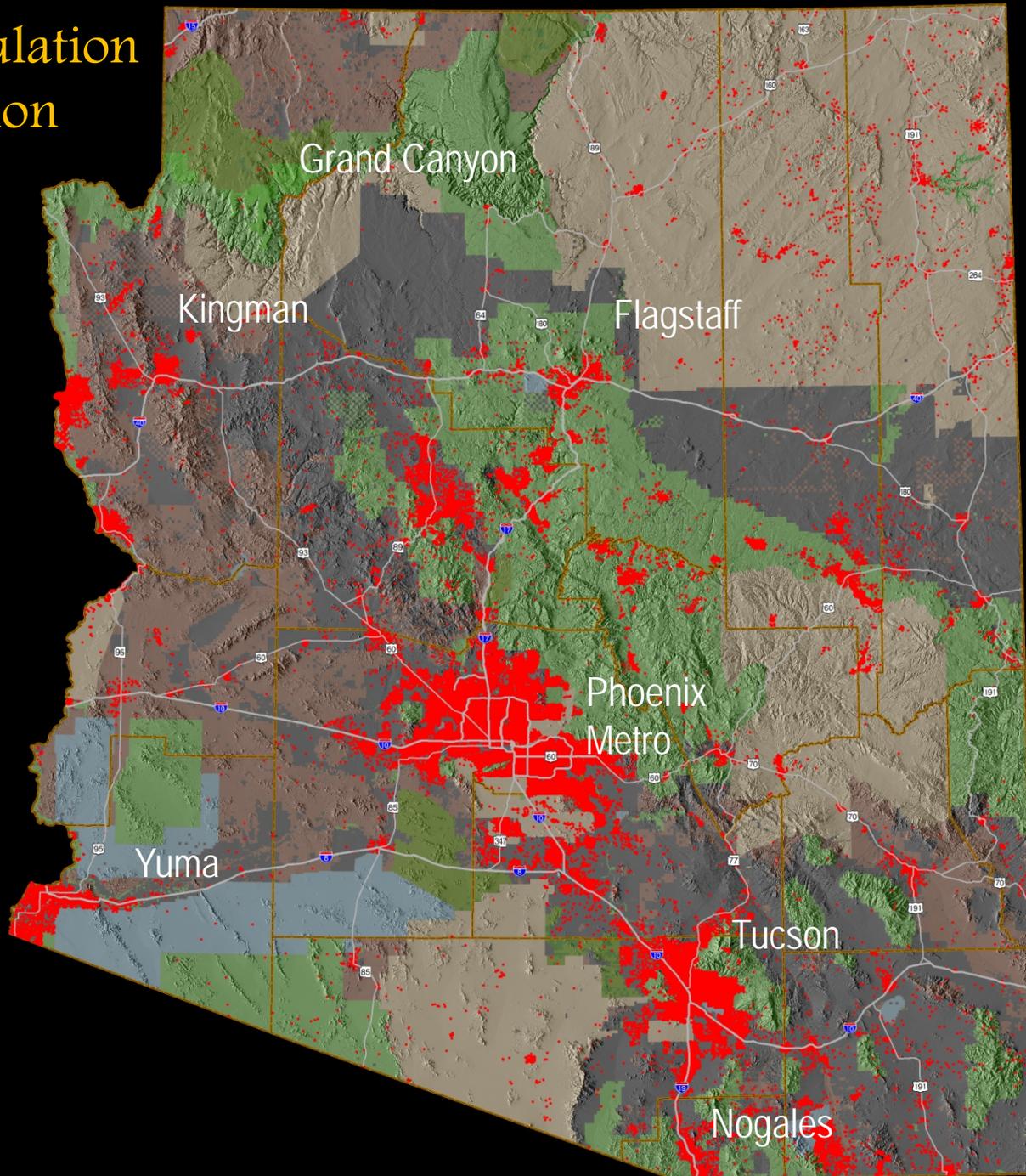
2010 – Population
6.4 Million



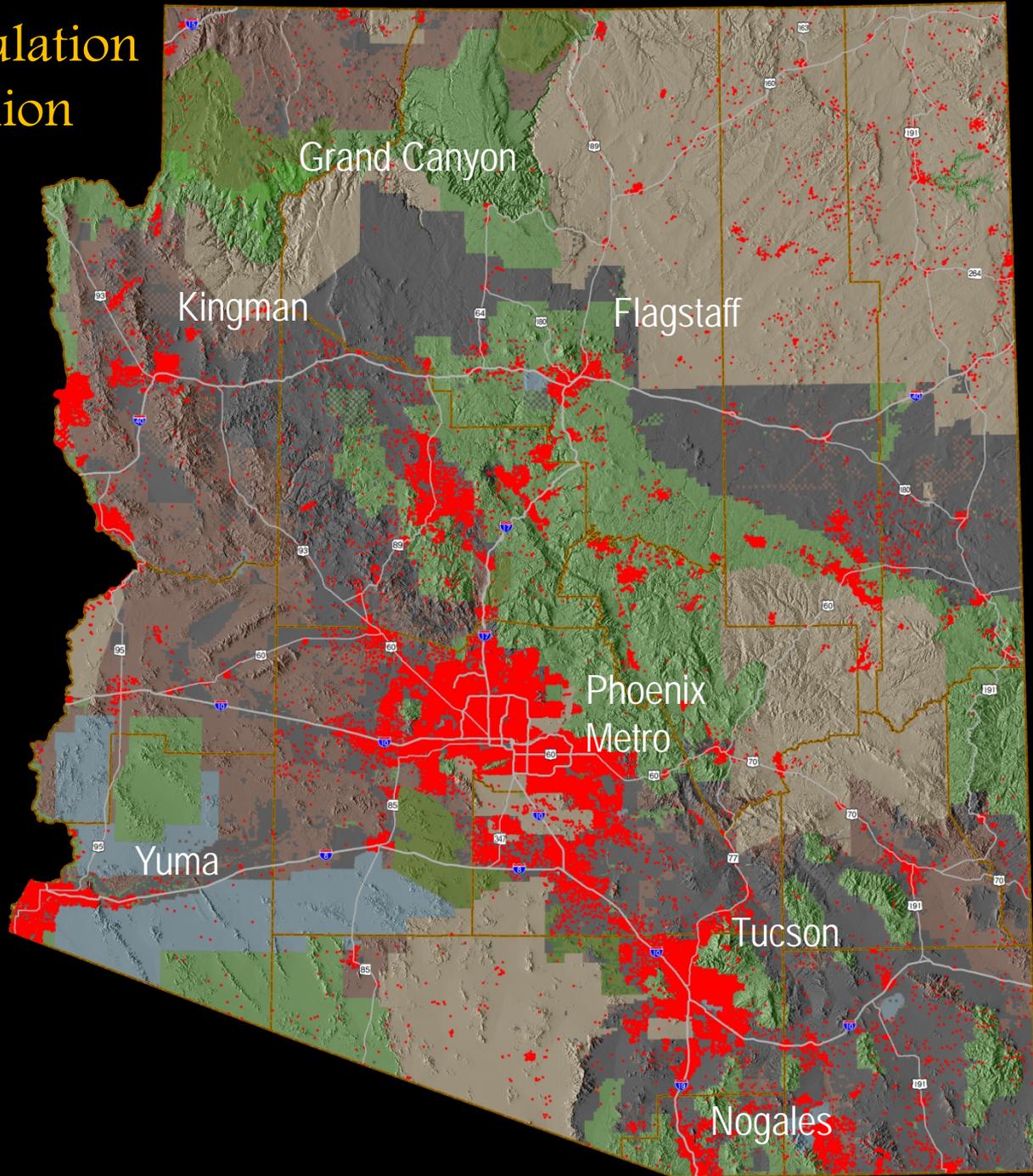
2020 – Population 7.5 Million

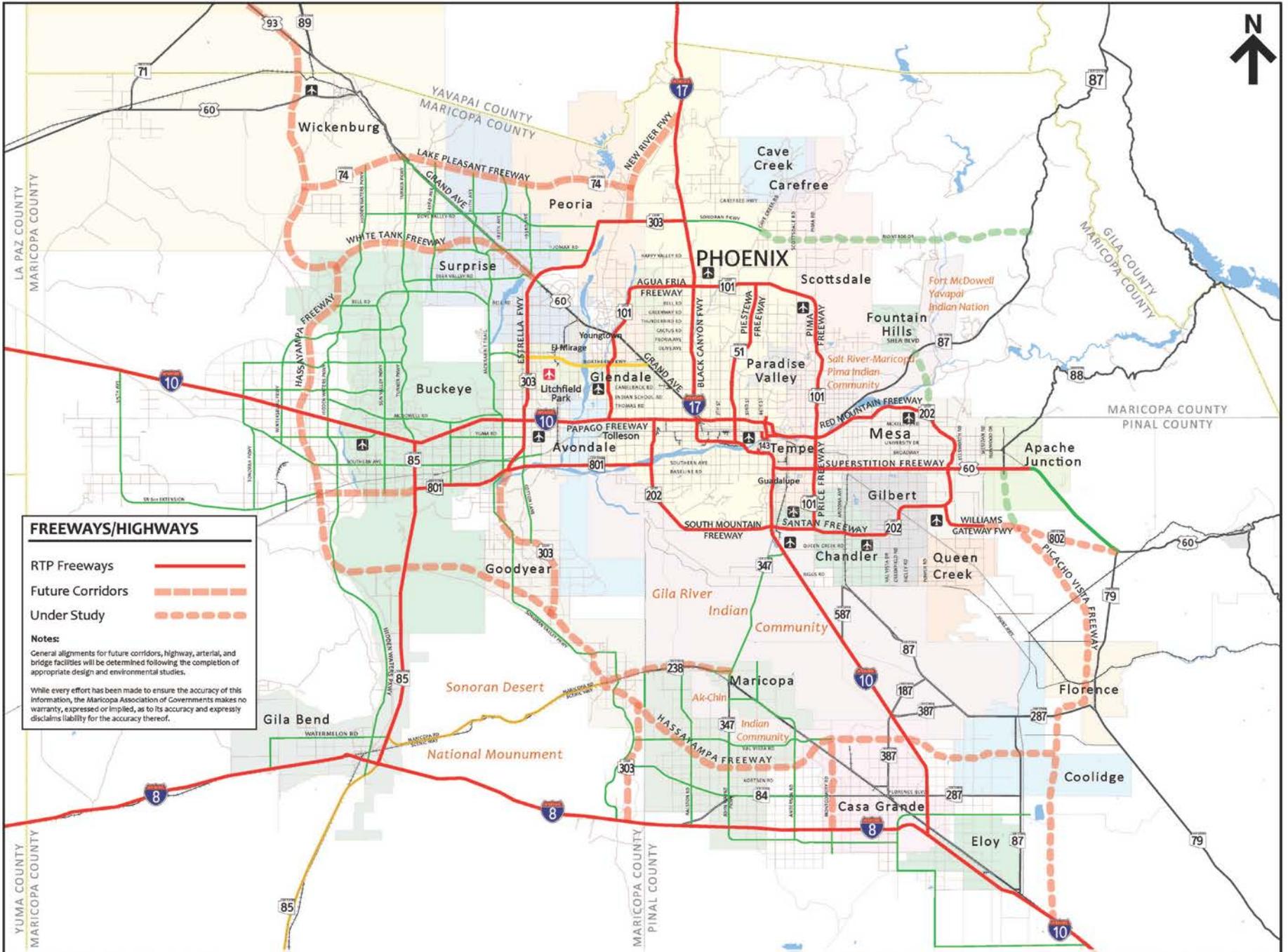


2030 – Population
8.9 Million



2040 – Population
10.2 Million





FREEWAYS/HIGHWAYS

RTP Freeways ————

Future Corridors - - - - -

Under Study

Notes:
 General alignments for future corridors, highway, arterial, and bridge facilities will be determined following the completion of appropriate design and environmental studies.

While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

ROADWAY FRAMEWORK

INTERSTATE 10-HASSAYAMPA VALLEY TRANSPORTATION FRAMEWORK STUDY



	Population	Employment
2005	138,000	48,000
2030	948,000	379,000
Build-Out	2,862,000	836,000



Why do we need Frameworks?

“Getting in front of Growth,” by understanding:

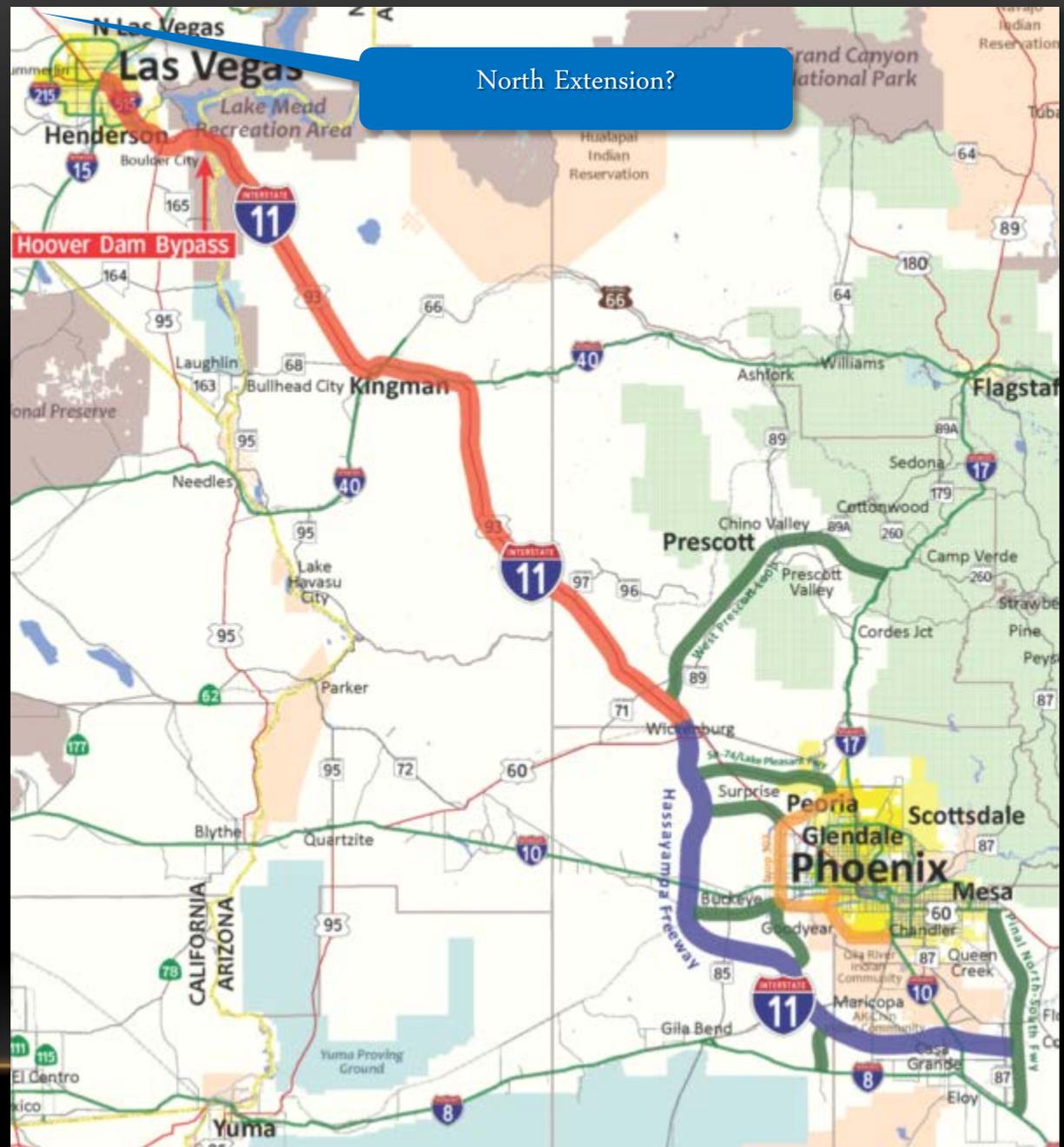
- Land use, socio-economic, and development patterns
 - Environmental Issues
 - Cultural Resources
 - Programmed improvements
 - Connections - Continuity
 - **Corridor preservation**
-

NEW INTERSTATE CONNECTION



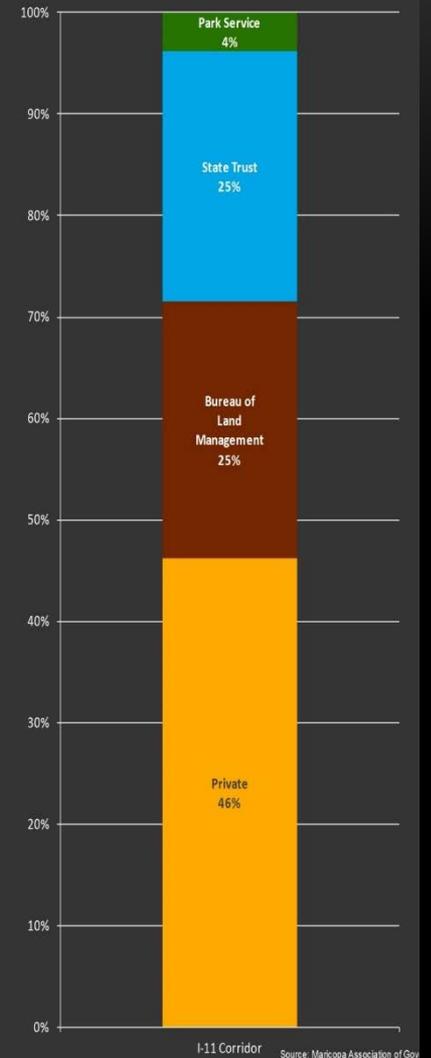
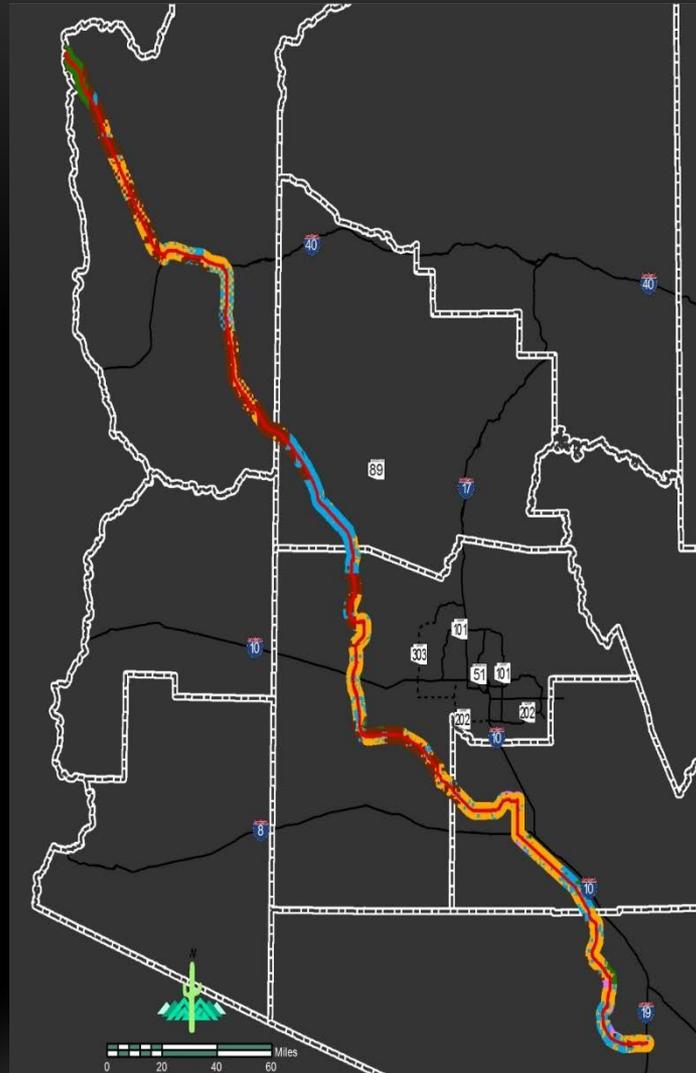
INTERSTATE 11 CORRIDOR MAP

- Red Line – Interstate 11 North Corridor-replacing US-93 and Interstate 515
- Blue Line – Interstate 11 South Corridor - New Hassayampa Freeway
- Arizona – 344 miles
- Nevada – 31 miles

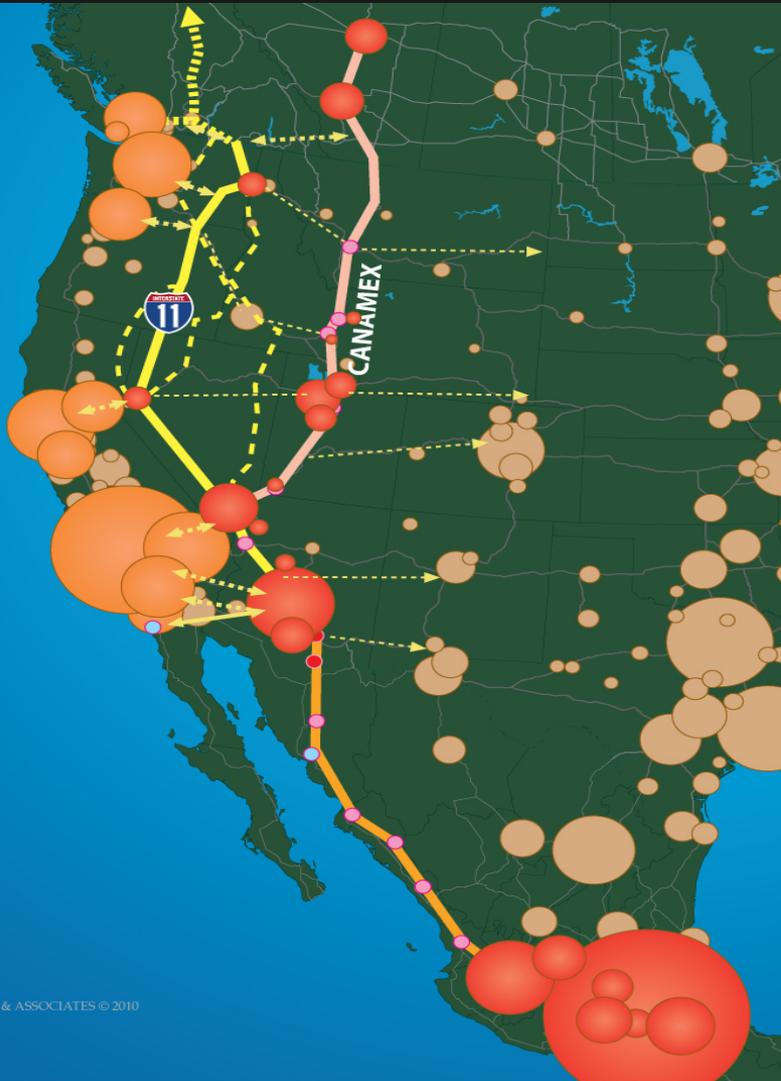


Potential Interstate 11 Property Ownership

More than half the of the corridor is along State and BLM lands.

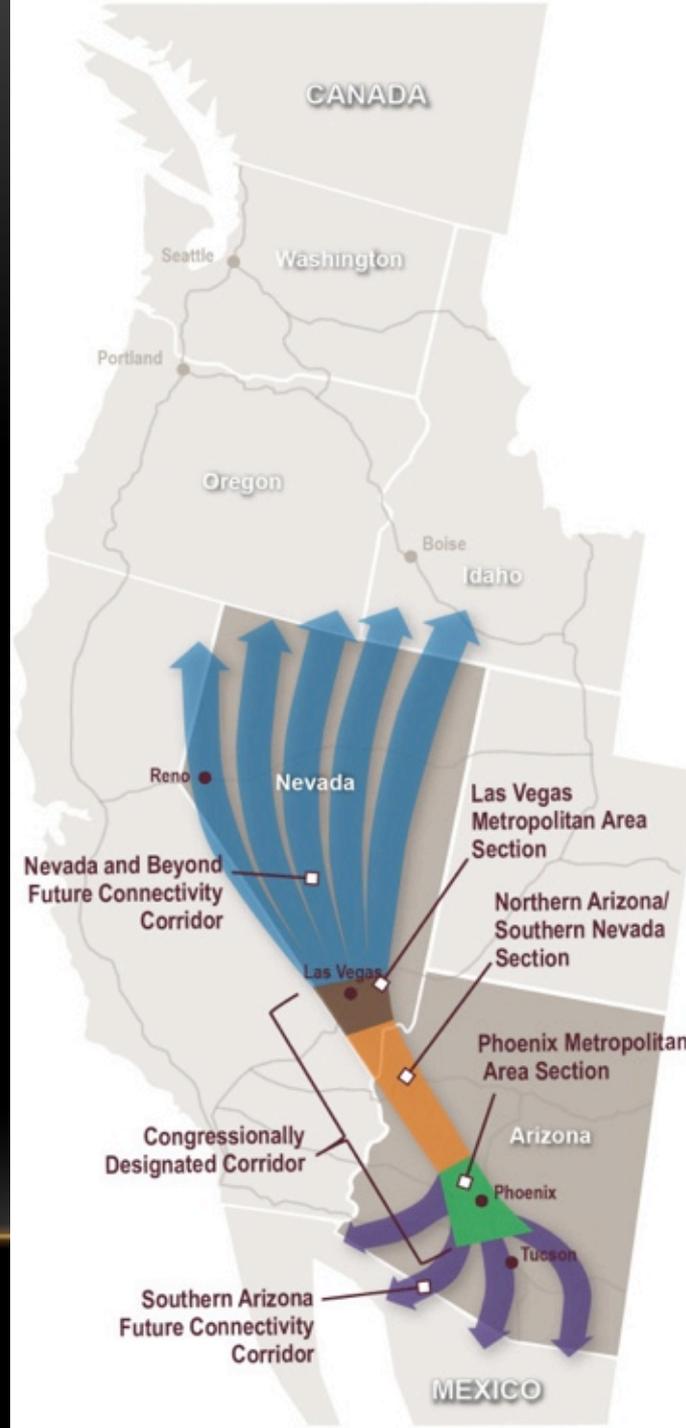


Interstate 11 related to Population Centers



I-11 and Intermountain West Corridor Study

Joint project by the Arizona DOT and Nevada DOT, in association with the Federal Highway Administration, Federal Railroad Administration, MAG, and Regional Transportation Commission of Southern Nevada.



- Completed in September 2014.
- NDOT currently constructing the first segments of I-11.
- ADOT conducting a statewide EIS for I-11

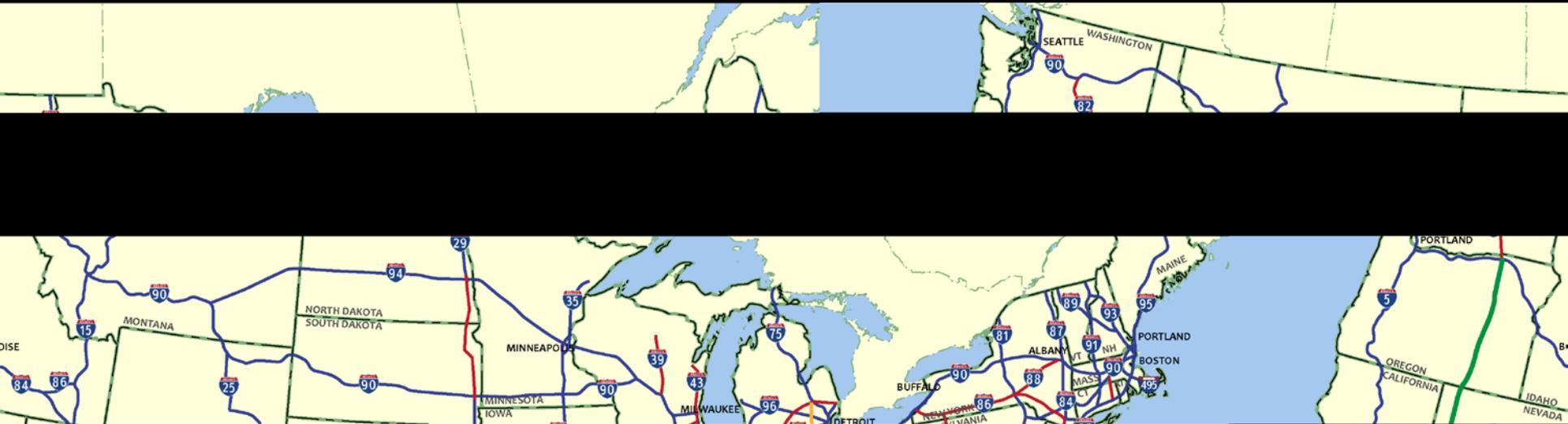
Interstate Highway System

1956 Federal-Aid Authorization



Interstate Highway System

Interstate 11 Corridor





Transportation

- Major Highway
- Proposed I-11 Corridor/Canamex Route
- Major Freight Corridor
- Railroad
- International Airport
- Port of Entry
- Sea Port

Research & Development

- Major University
- Incubators (Scaled by Total #)

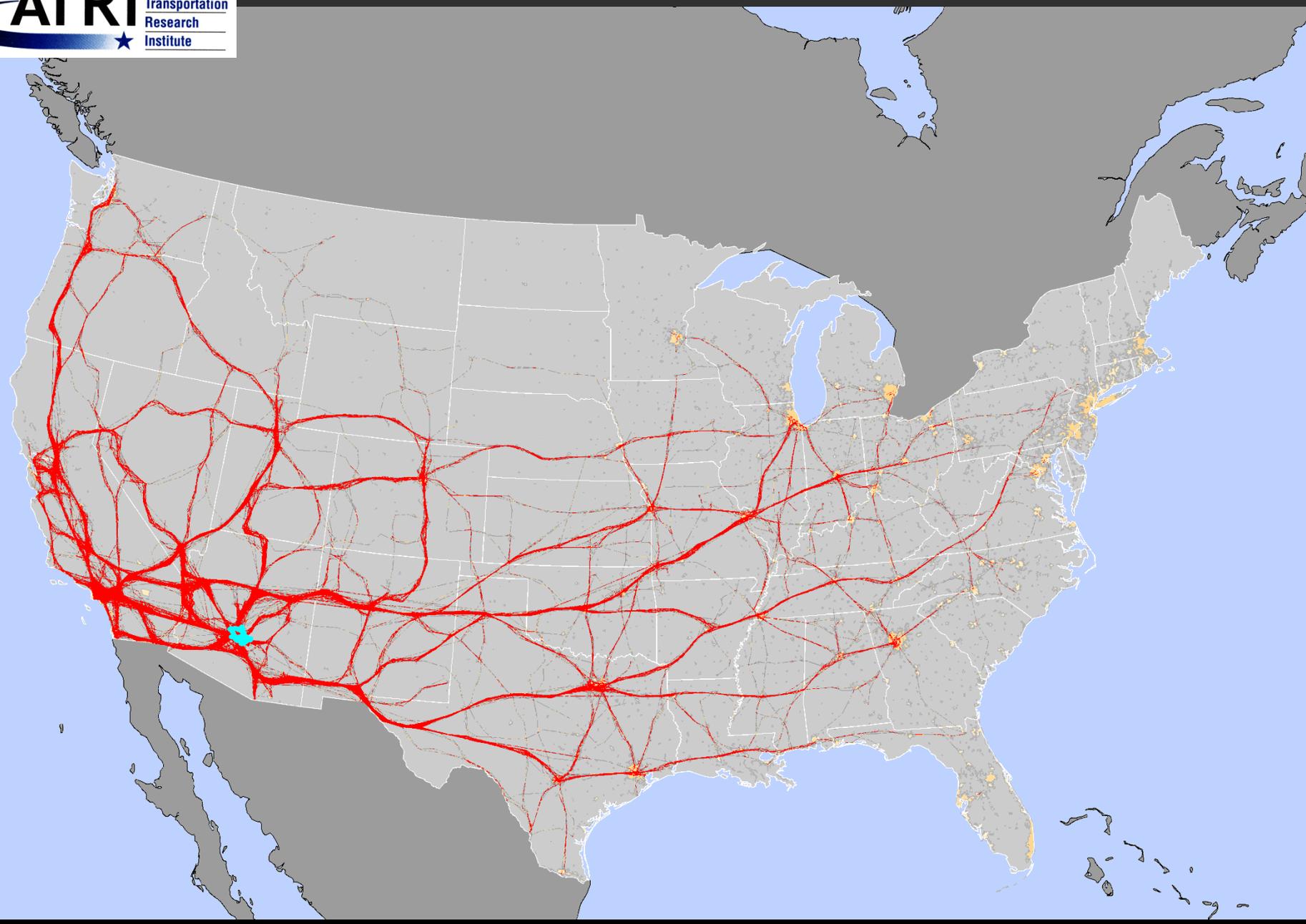
Major Industries

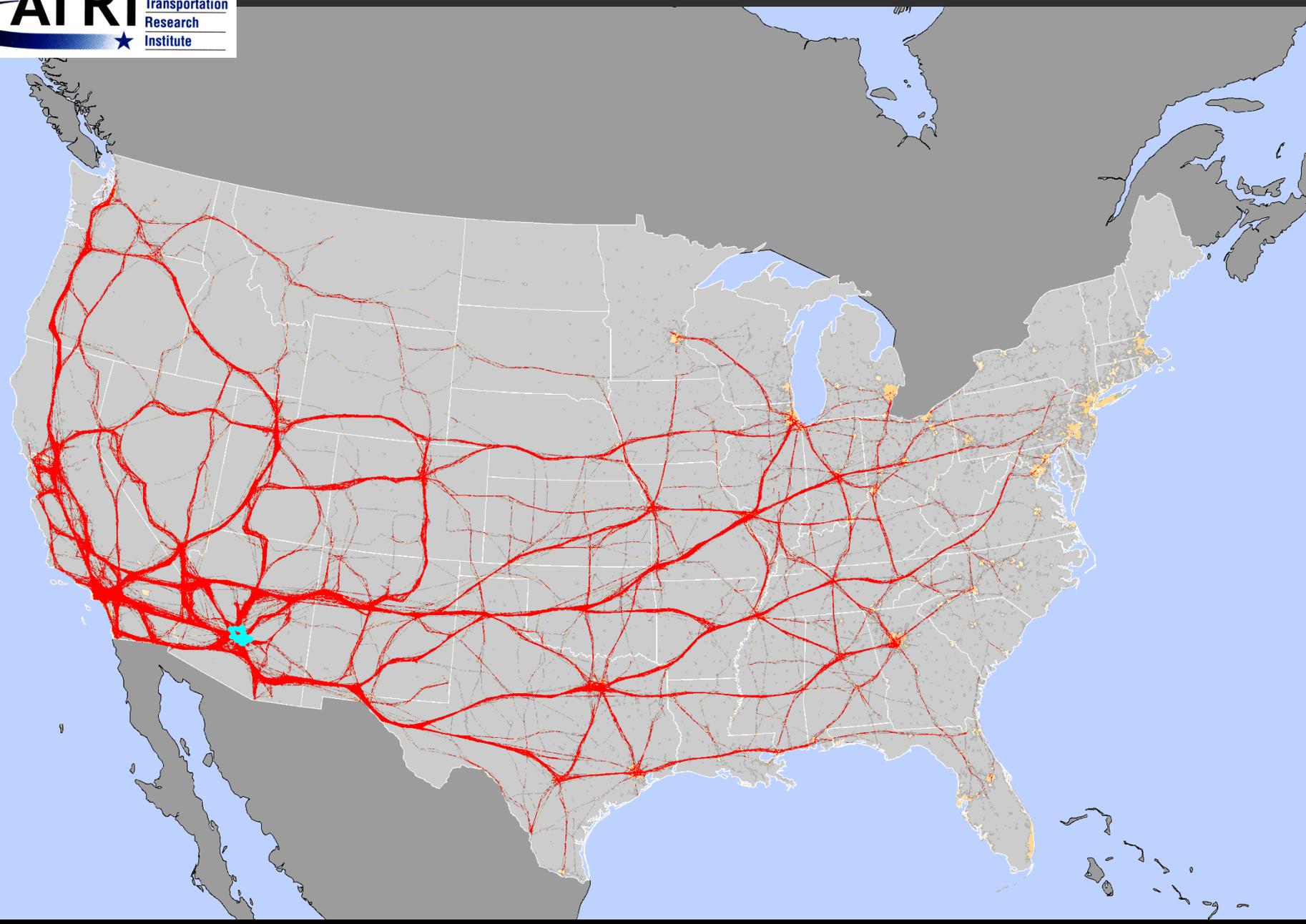
- Transportation, Distribution & Logistics
- Advanced Business Services
- Manufacturing
- Aerospace & Defense
- Automotive
- Metal/Mechanical
- Mining
- Electronic
- Agribusiness
- Medical & Biomedical
- Information/Emerging Technology
- Solar & Renewable Energy
- Hospitality & Tourism
- Heavy Construction Services

Source: Greater Phoenix Economic Council, Tucson Regional Economic Opportunities, Greater Yuma Economic Development Corp, Economic Development Council for Sonora, Harvard Cluster Mapping Project, ERM, USGS, and NOAA.









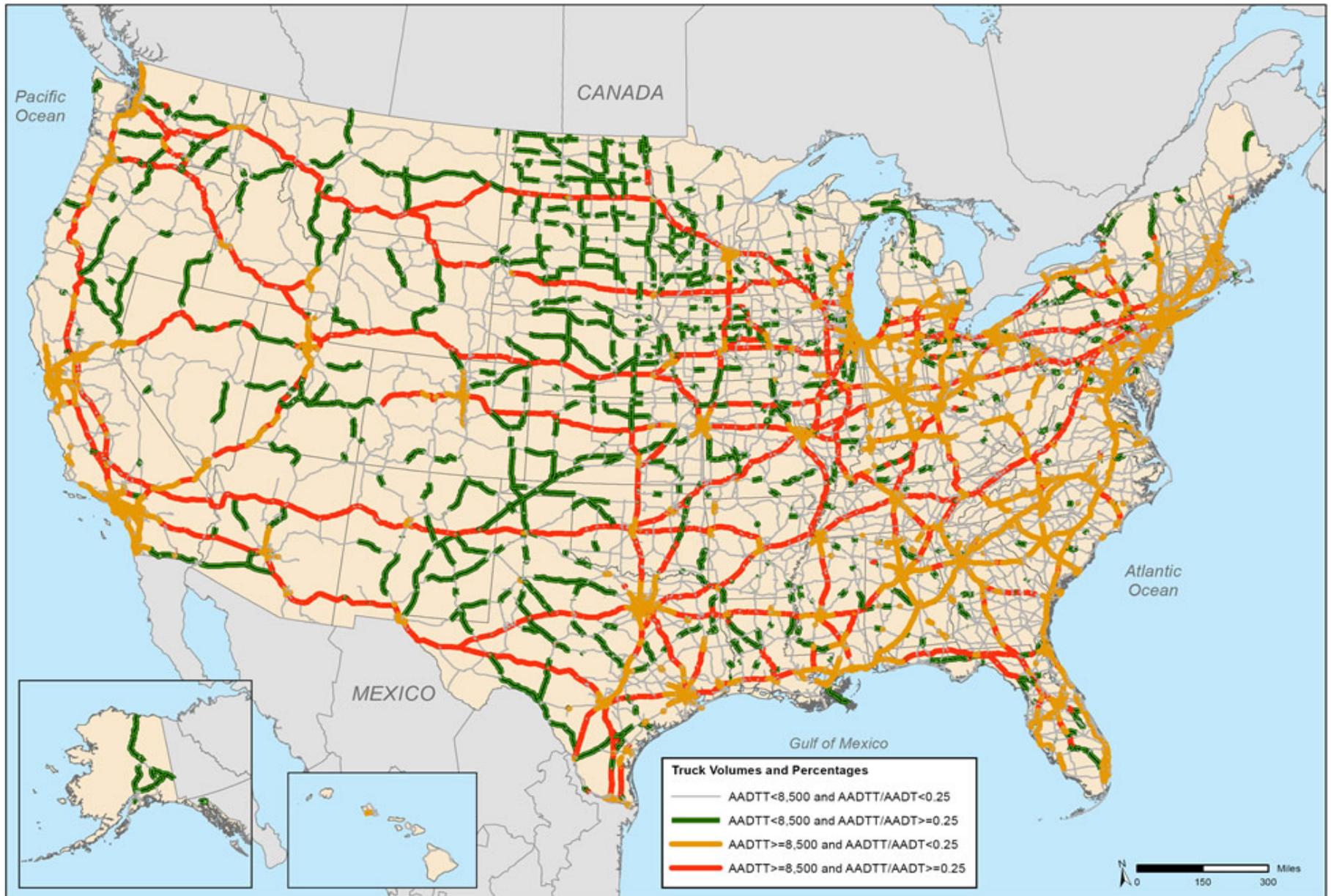
Top 25 U.S.-International Trade Freight Gateways by Value of Shipments



Notes: All data: Trade levels reflect the mode of transportation as a shipment enters or exits at a border port. Flows through individual ports are based on reported data collected from U.S. trade documents. Trade does not include low-value shipments. (In general, these are imports valued at less than \$1,250 and exports that are valued at less than \$2,500). **Air:** Data for all air gateways include a low level (generally less than 2%-3% of the total value) of small user-fee airports located in the same region. Air gateways not identified by airport name (e.g., Chicago, IL, and others) include major airport(s) in that geographic area in addition to small regional airports. In addition, due to U.S. Census Bureau confidentiality regulations, data for courier operations are included in the airport totals for JFK International Airport, Cleveland, New Orleans, Los Angeles, Chicago, Miami, and Anchorage. To further protect data for individual couriers, data for Memphis is included with New Orleans and data for Louisville is included with Cleveland.

Sources: **Air:** U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Division, special tabulation, October 2012; **Water:** U.S. Army Corps of Engineers, Institute for Water Resources, special tabulation, October 2012; **Land:** U.S. Department of Transportation, Bureau of Transportation Statistics, North American Transborder Freight Data, special tabulation, available at www.bts.gov/programs/international/transborder/ as of October 2012; as reported in U.S. Department of Transportation, Bureau of Transportation Statistics, National Transportation Statistics, available at www.rta.dot.gov/bts/publications as of October 8, 2013.

Major Truck Routes on the NHS: 2040



Notes: AADTT is average annual daily truck traffic and includes all freight-hauling and other trucks with six or more tires. AADT is average annual daily traffic and includes all motor vehicles. NHS mileage as of 2011, prior to MAP-21 system expansion.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.4, 2013.

Peak-Period Congestion on the NHS: 2040



Notes: AADTT is average annual daily truck traffic and includes all freight-hauling and other trucks with six or more tires. AADT is average annual daily traffic and includes all motor vehicles. NHS mileage as of 2011, prior to MAP-21 system expansion.

Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, *Freight Analysis Framework*, version 3.4, 2013.



Sea Ports

Sea Ports

 Sea Ports

Other Features

 Other Features

 MPO Boundaries

 Interstate Freeways



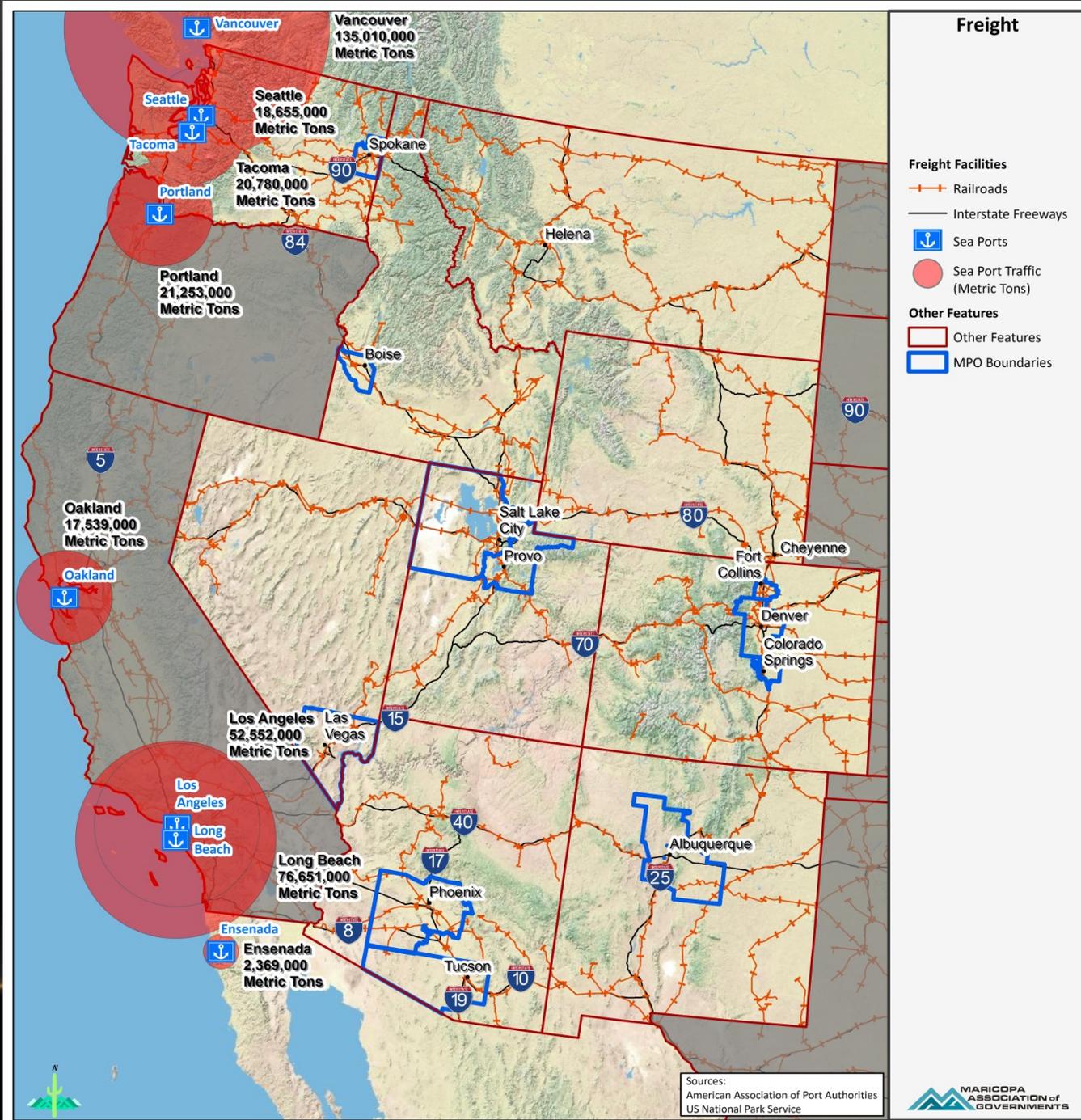
Source: US National Park Service

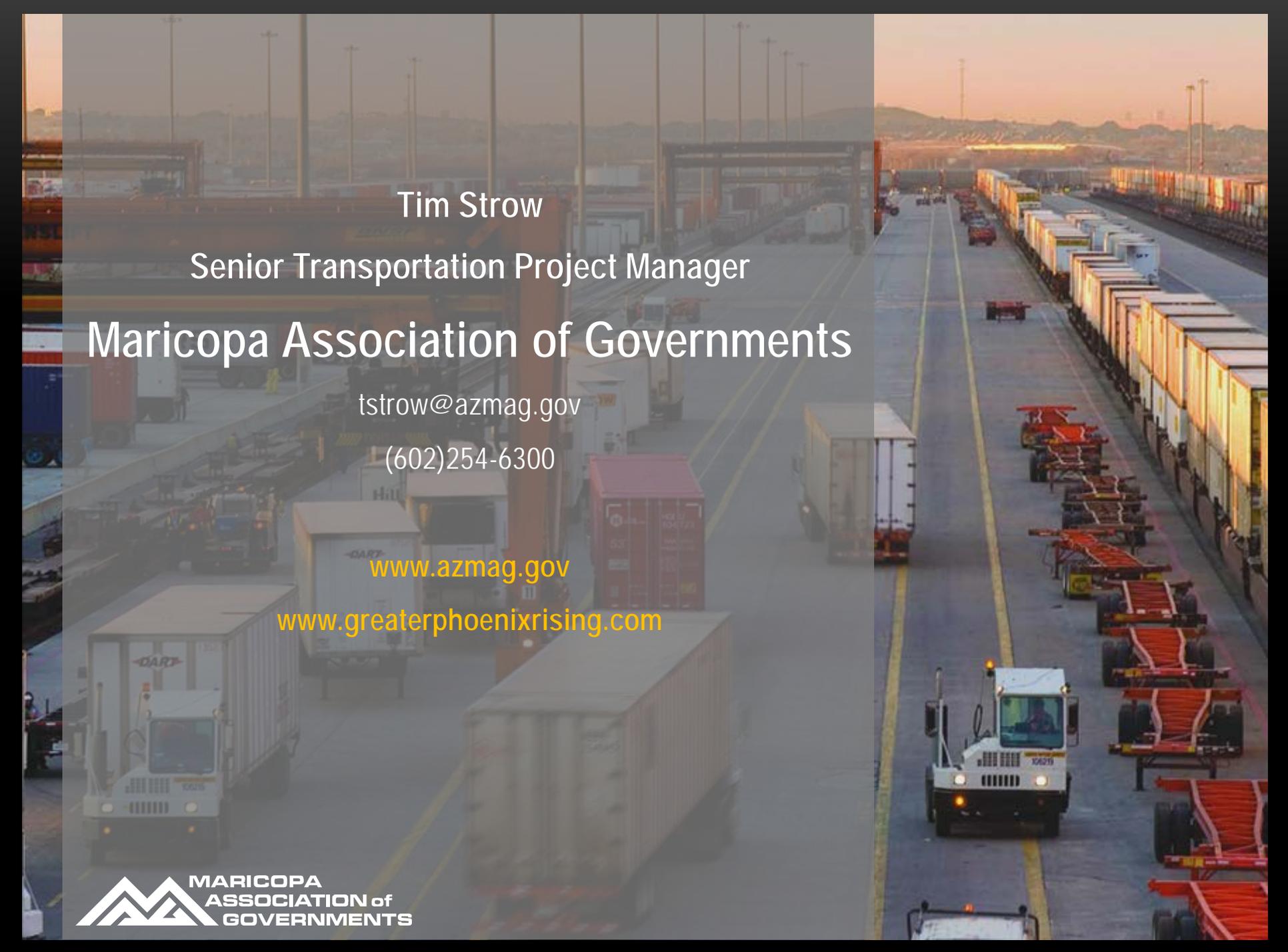
I-11 Alternatives

- State Boundaries
- Interstate Freeways
- I-11 Alternatives**
- NV/OR Direct
- Nevada US-93
- Boise US-95
- CA/OR US-395



- Major Multimodal Freight Corridors
- West Coast Deep Sea Ports
- North /South Options
- International Trade /Ports of Entry
- Connected Economies





Tim Strow

Senior Transportation Project Manager

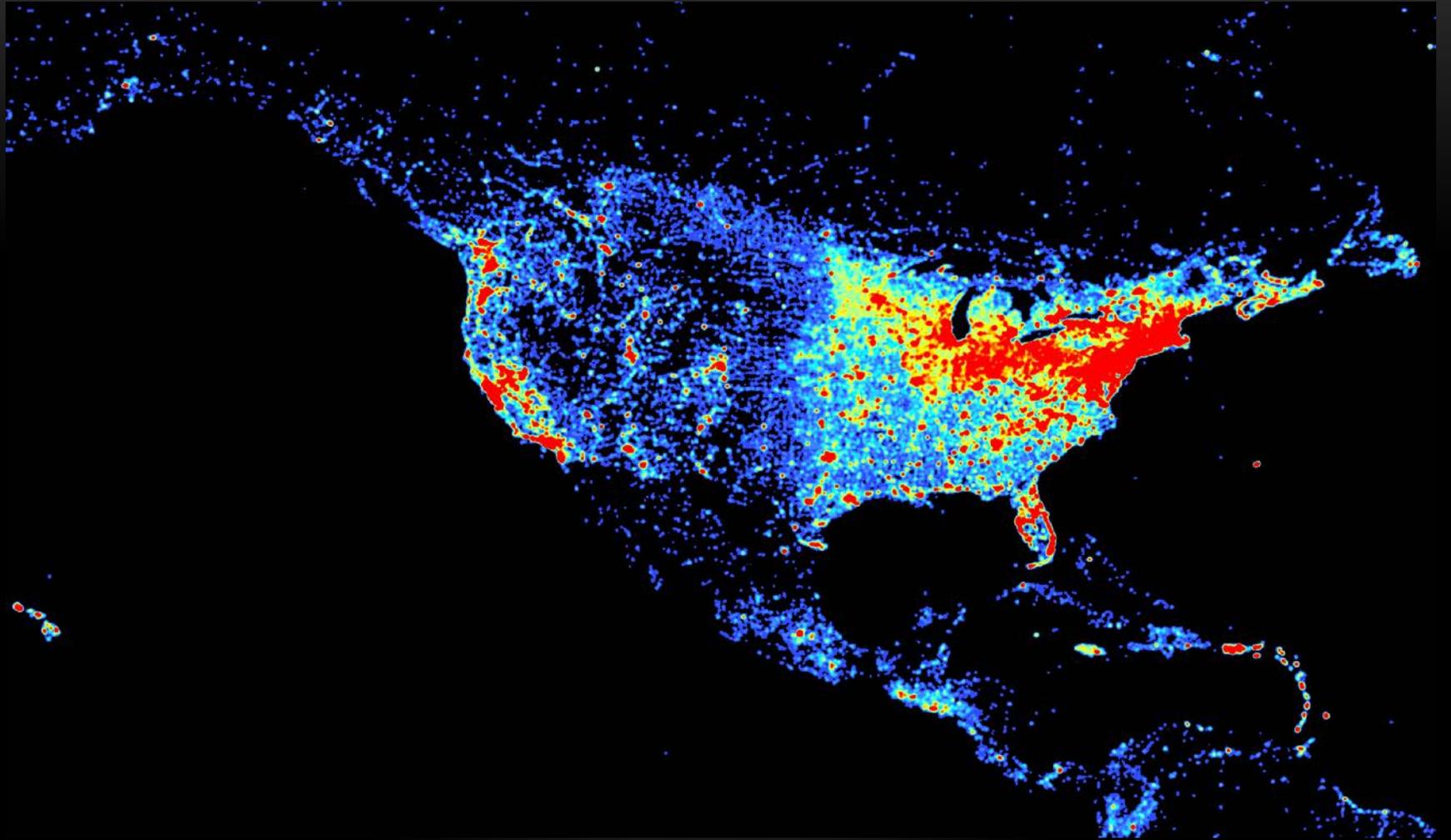
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Federal Definition – The CANAMEX Trade Corridor

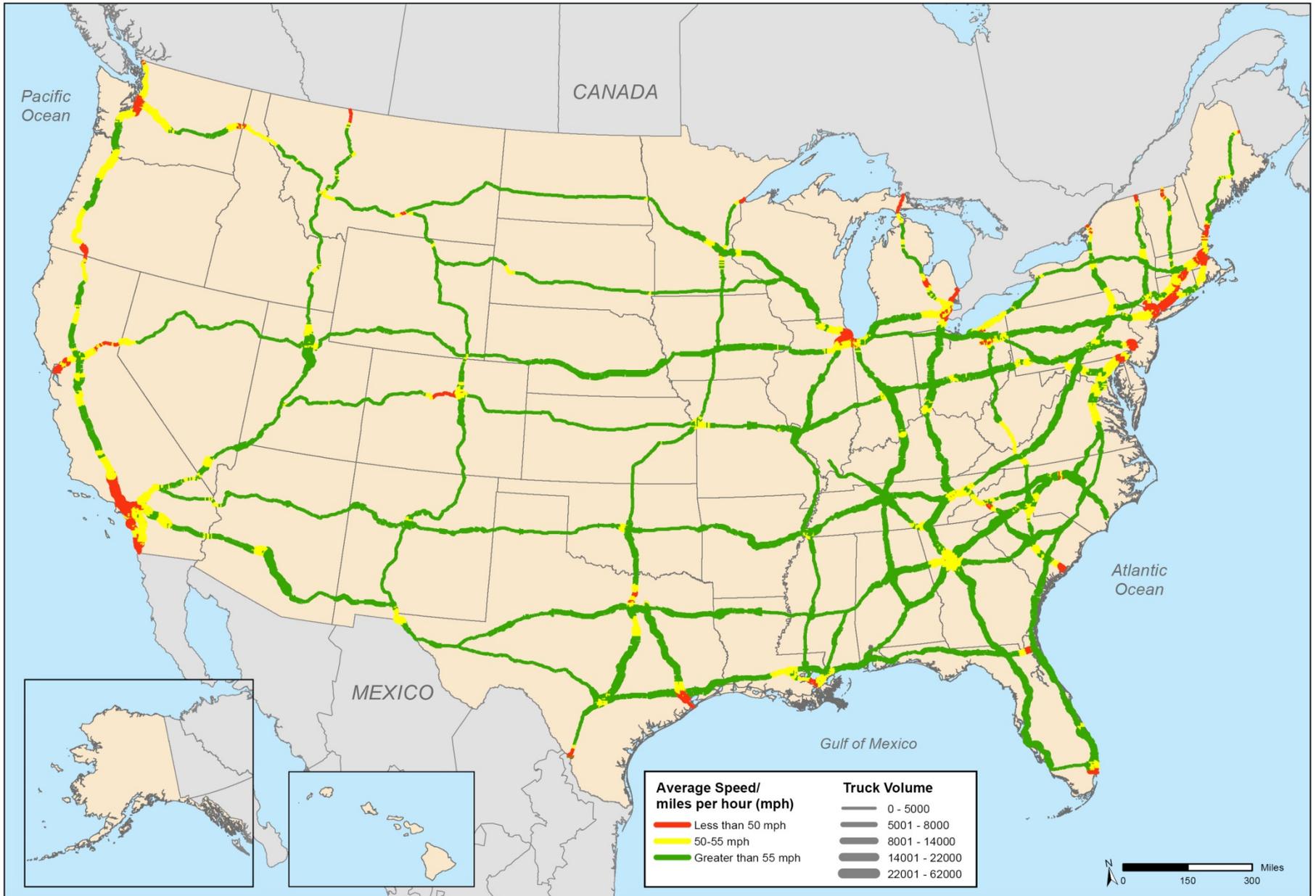
The **CANAMEX** Trade Corridor, as defined by Congress in the 1995 **National Highway Systems Designation Act**, is a High Priority Corridor. (from Public Law 104-59, November 28, 1995)

The **CANAMEX** Corridor from Nogales, Arizona, through Las Vegas, Nevada, to Salt Lake City, Utah, to Idaho Falls, Idaho, to Montana, to the canadian Border as follows:

- (A) In the State of Arizona, the **CANAMEX** Corridor shall generally follow– (i) I-19 from Nogales to Tucson; (ii) I-10 from Tucson to Phoenix; and (iii) United States Route 93 in the vicinity of Phoenix to the Nevada Border.
- (B) In the State of Nevada, the **CANAMEX** Corridor shall follow– (i) United States Route 93 from the Arizona Border to Las Vegas; and (ii) I-15 from Las Vegas to the Utah Border.
- (C) From the Utah Border through Montana to the Canadian Border, the **CANAMEX** Corridor shall follow I-15.

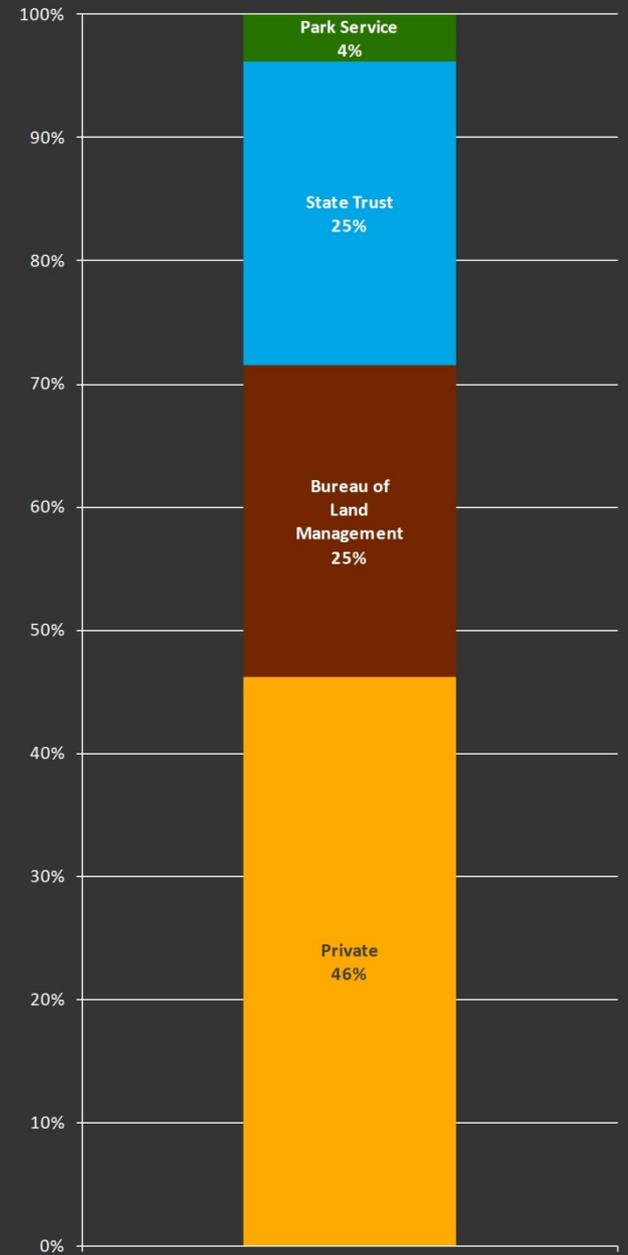
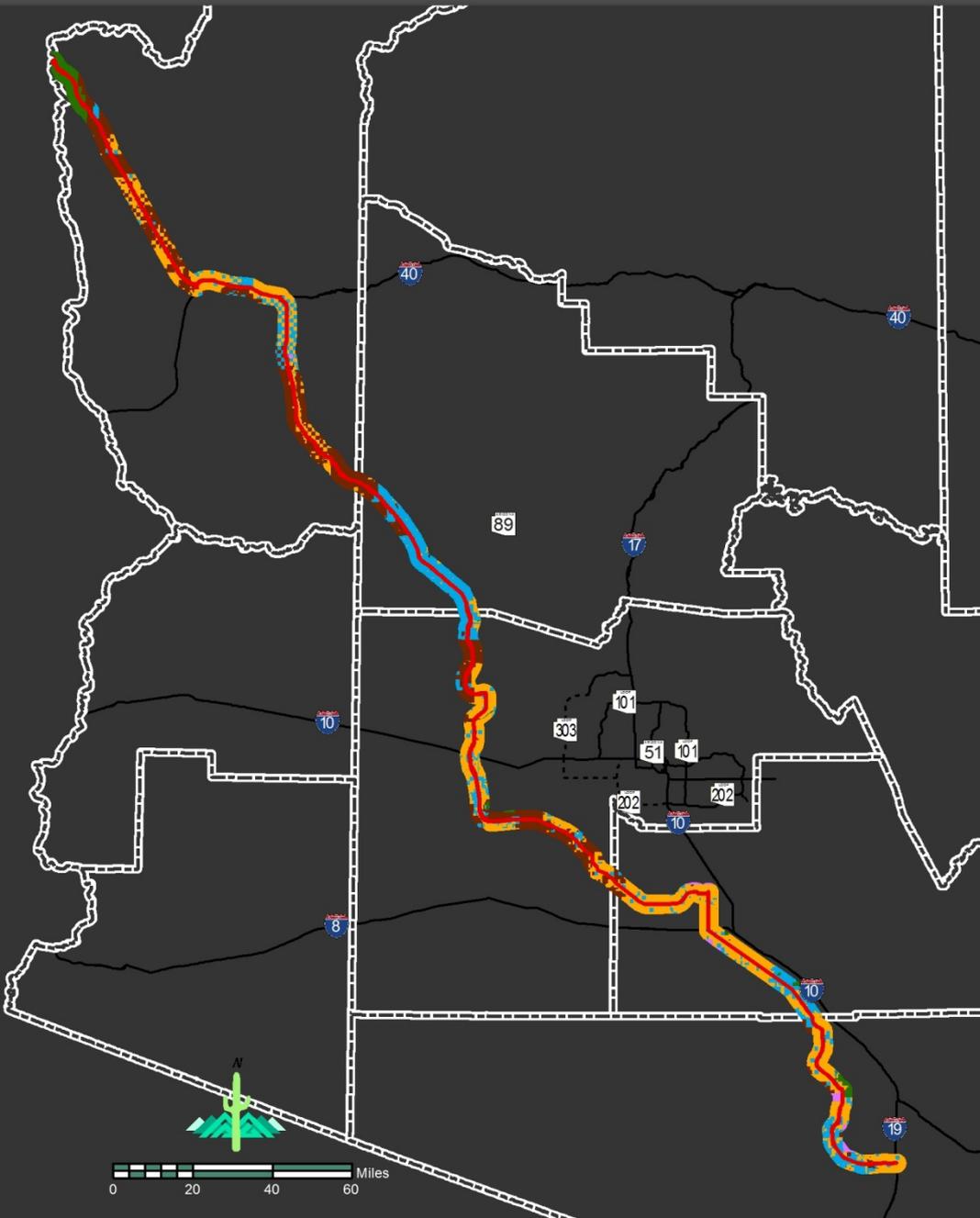


Intensity of Truck Freight Congestion on Selected Interstate Highways: 2012



Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Performance Measurement Program, 2013.

Proposed Interstate 11 Corridor: Land Ownership



I-11 Corridor

Source: Maricopa Association of Governments, Arizona State Land Department