DIRECTION 2040

Long Range Transportation Plan Update
Kick-off Meeting

December 1, 2016

Michael Baker INTERNATIONAL

integrated designs, inc.

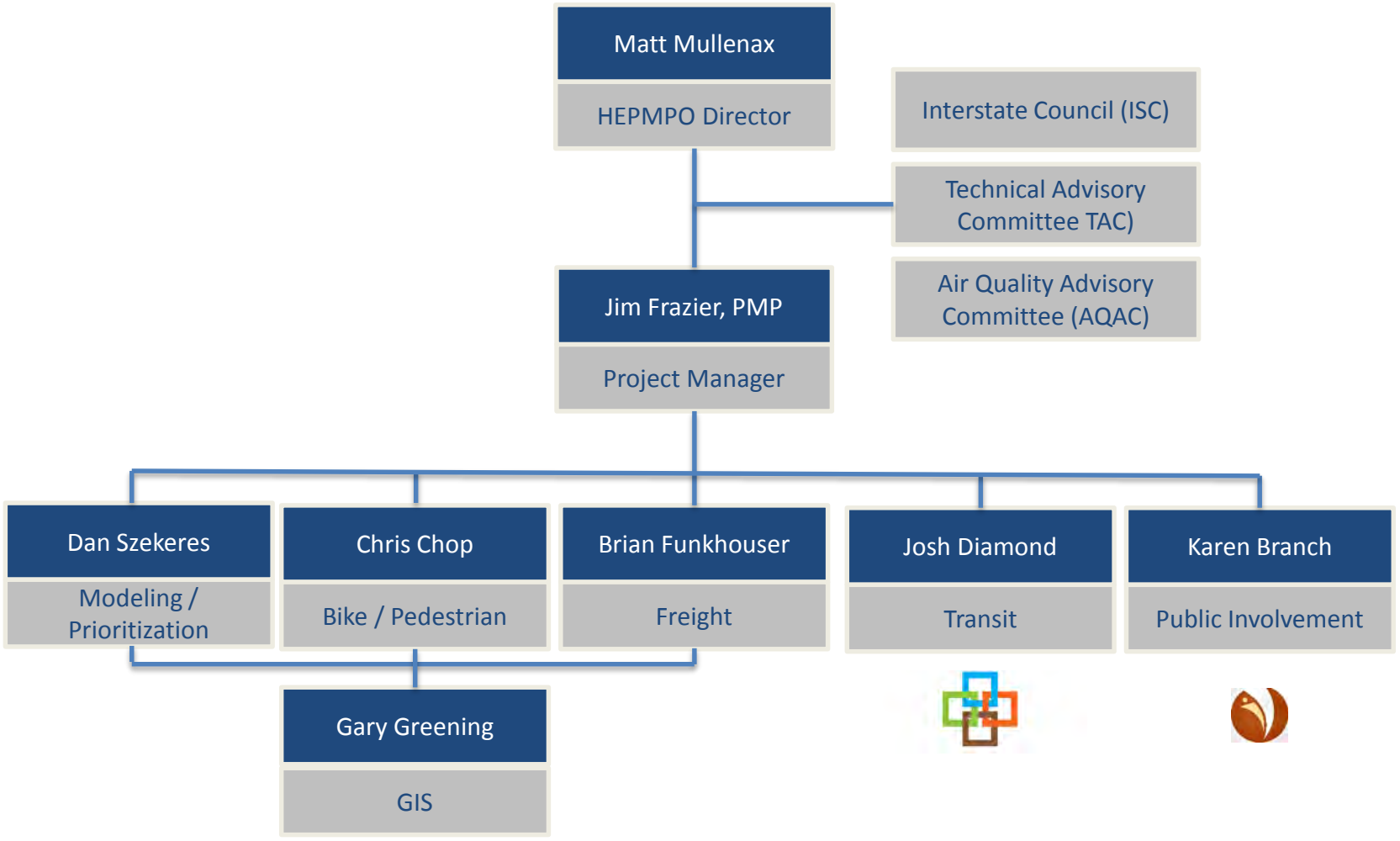
FOURSQUARE INTEGRATED TRANSPORTATION PLANNING

Meeting Agenda

1. Introductions
2. Project Staff and Roles
3. Changes to the Planning Process
4. Overview of the LRTP Work Plan
5. Goals and Objectives Exercise
6. Schedule – Next Steps

Project Staff and Roles

Project Staff and Roles



Changes to the Planning Process

LRTP - What's Changing

- MAP-21 and FAST Act
  - Include performance targets in their plans
  - Link investment priorities to performance targets
  - Report on progress
- Performance-based Planning
- National Goals for Highway System
- Emphasis on Freight, Resiliency…

Performance Management Framework

- MAP-21 and FAST Act
  - Establishes National Performance Goal Areas (Public Law)
  - USDOT
  - Establishes National Performance Measures (Final Rules)
- State DOTs, MPOs, Providers of Public Transportation
  - Establish performance targets (1-year of Effective Date)
- State DOTs and MPOs (180 days after State)
  - Include performance targets in their plans
  - Link investment priorities to performance targets
  - Report on progress

- ✓ Safety Performance Measures
- ✓ Highway Safety Improvement Program
- ✓ Statewide and Metropolitan Planning
- Pavement and Bridge Performance
- Highway Asset Management
- Performance of the National Highway System, Freight and CMAQ Measures

Performance Management System

MDOT EXCELLERATOR

Performance Management System

Motor Vehicle Administration (MVA)

PURPOSE OF MEASURE:
To track trends in the number of persons killed in motor vehicle crashes per vehicle miles traveled (VMT).

FREQUENCY:
Annually (in January)

DATA COLLECTION METHODOLOGY:
Traveled (VMT) data based on highway counts on roadways across the state. Fatality data is collected by the Maryland State Police (MSP) through its Automated Crash Reporting System (ACRS). The Maryland Highway Safety Office (MHSO) collects the data from these two agencies.

NATIONAL BENCHMARK:
National Highway Fatality Rate of 1.07 in 2014

PERFORMANCE MEASURE 3.3

Maryland Traffic-Related Fatality Rate (Highways)

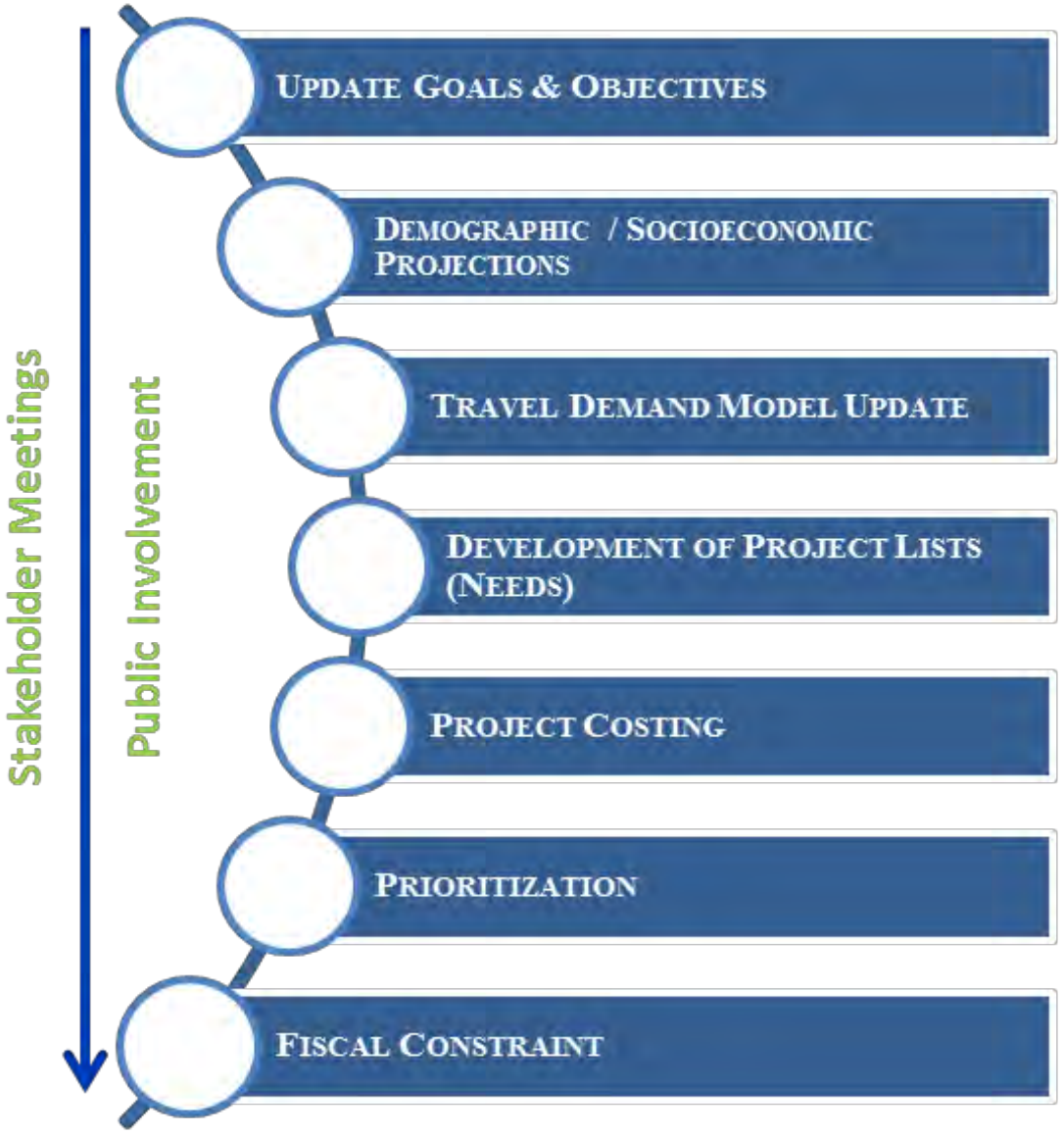
Maryland's fatality rate compares favorably to the national fatality rate. While the U.S. fatality rate has never dipped below one death per 100 million vehicle miles traveled (VMT), Maryland's rate has remained below one percent for the past six years. The rate has also trended downward for the past three years. Maryland's SHSP is a comprehensive set of emphasis areas and strategies designed to reduce highway fatalities and serious injuries through the implementation of behavioral and engineering safety countermeasures. It is based on the "Toward Zero Deaths" approach to reduce fatalities (and the associated fatality rate) by 50 percent by 2030 from the 2008 baseline of 592 fatalities.

Overview of the LRTP Work Plan

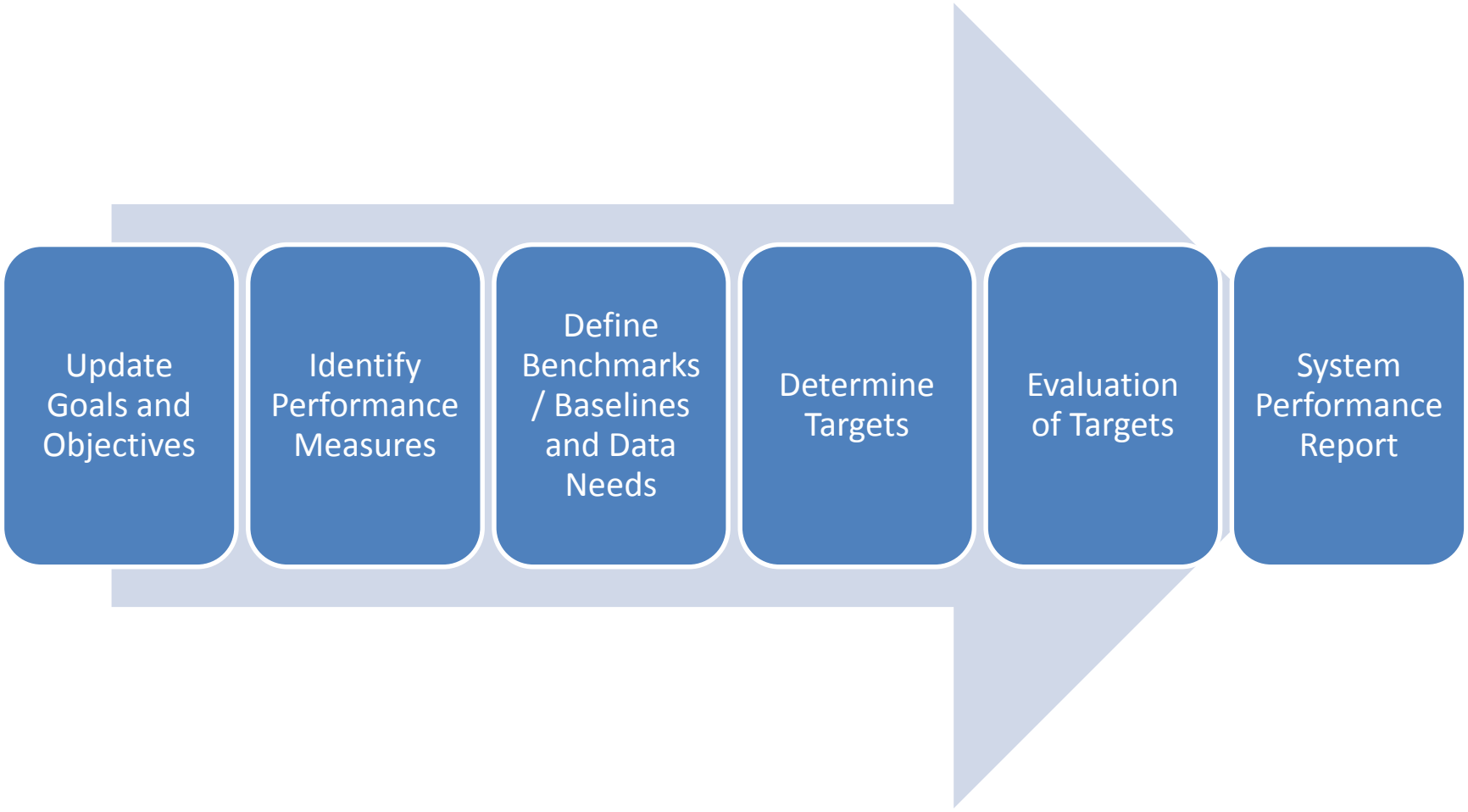
LRTP Key Work Tasks

1. Performance Measures and Targets
2. HEPMPO Travel Demand Model Validation
3. Public Involvement Plan
4. Data Collection
5. Existing and Future Conditions Analyses
6. Multimodal Plan Elements
7. Project Prioritization / Financial Constraint
8. Documentation
9. ~~Transportation Conformity~~

LRTP Process Overview



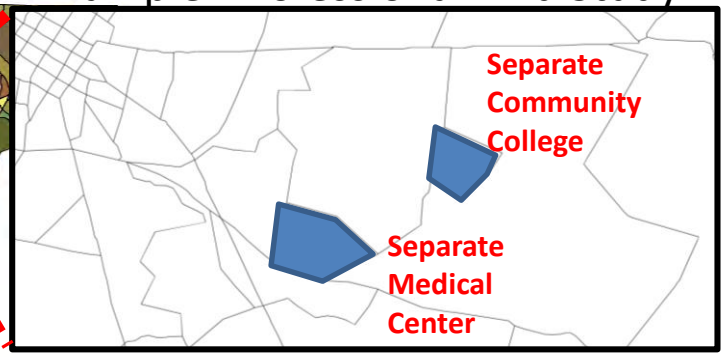
Performance Measures and Targets



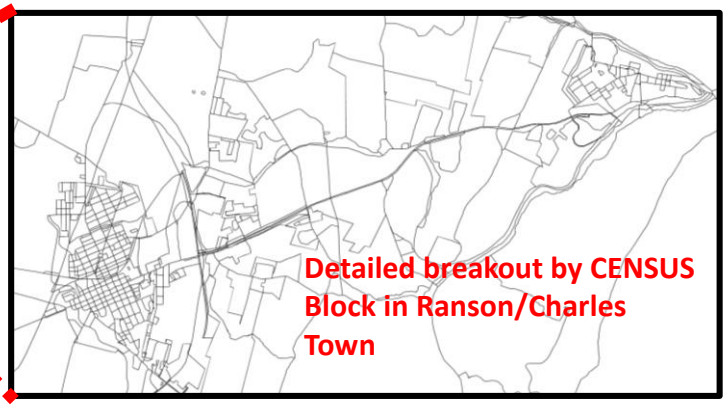
HEPMPO Travel Demand Model

- Origin and Destination Assessment
- Travel Demand Model Validation
- Model Enhancements

Example: Professional Blvd Study



Example: East Gateway Study



Public Involvement Plan

- ISC and TAC Meetings (3-5)
- Public Meetings
  - 3-County Meetings Open-House style
- Public Input Report

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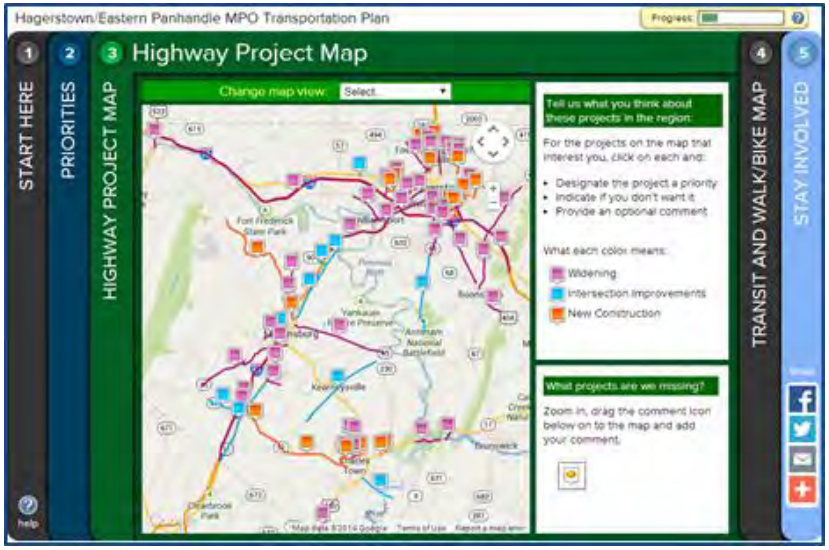
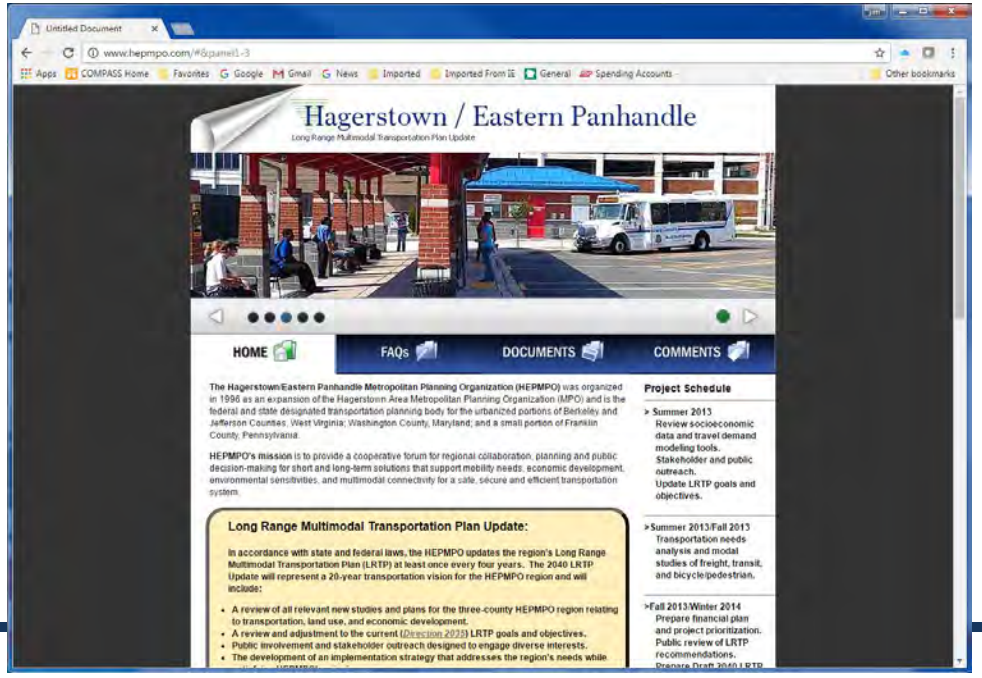
Stakeholder Outreach

- Intercept Survey for EJ and Title VI Outreach
- MetroQuest Survey
- Tourism and Travel Groups
- Website Support
  - www.hepmpo.com





Data Collection Efforts

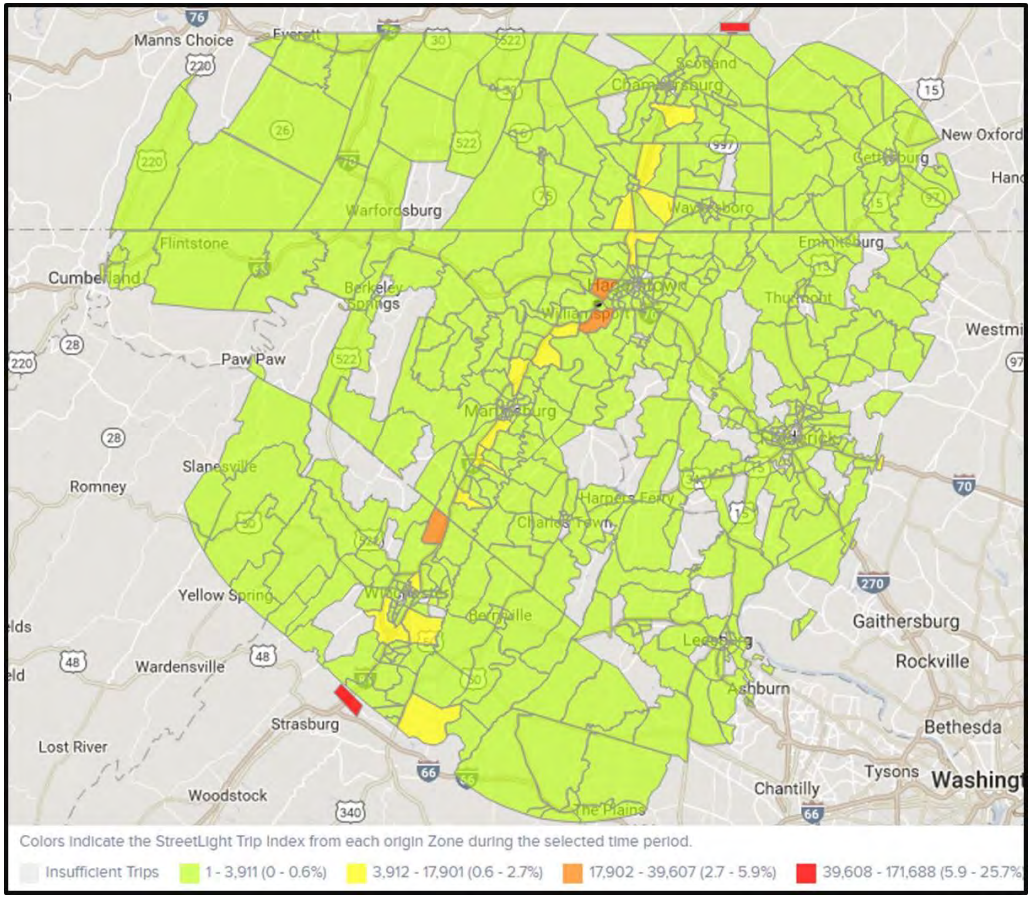
- Data Sources
  - GIS
  - Traffic
  - Streetlight and TomTom
  - Accident
  - Bridge Attributes / Scour
  - Stormwater / Road Closures
  - Census
  - Environmental
  - State and Local Plans
  - INRIX (Maryland)
  - Pavement Conditions

United States Census Bureau

AMERICAN FactFinder

O/D Assessment

- Streetlight Data



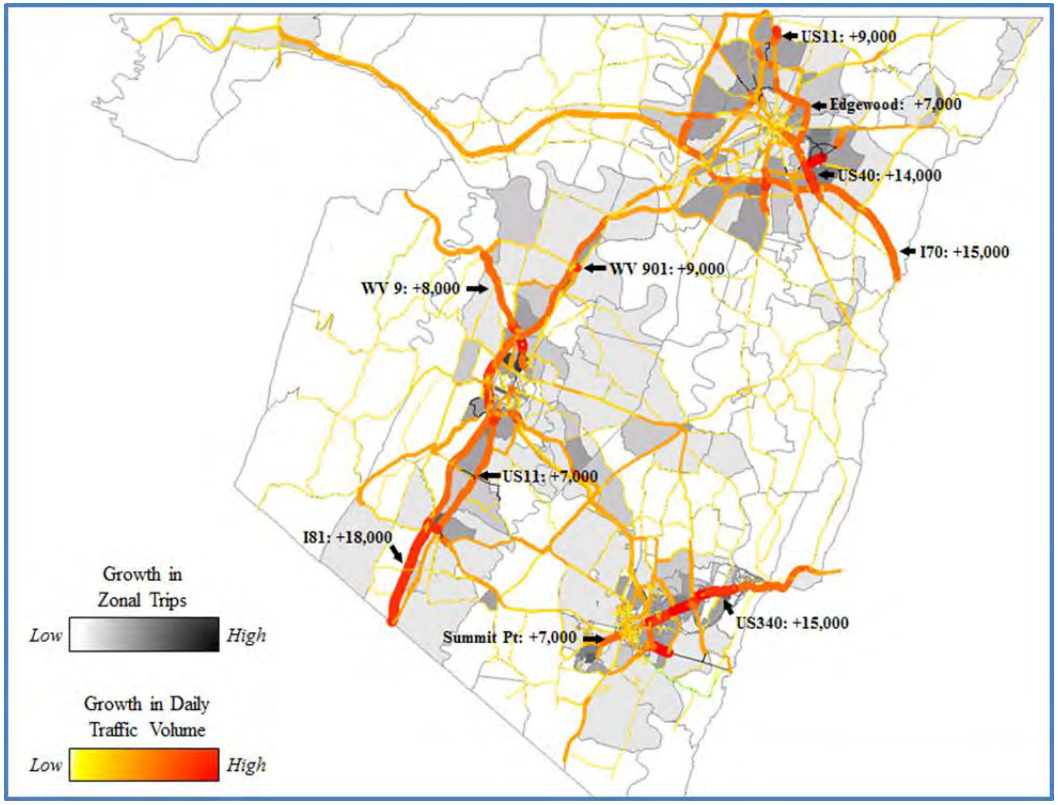
Origins of Trucks passing through Phase 2 of the I-81 Widening

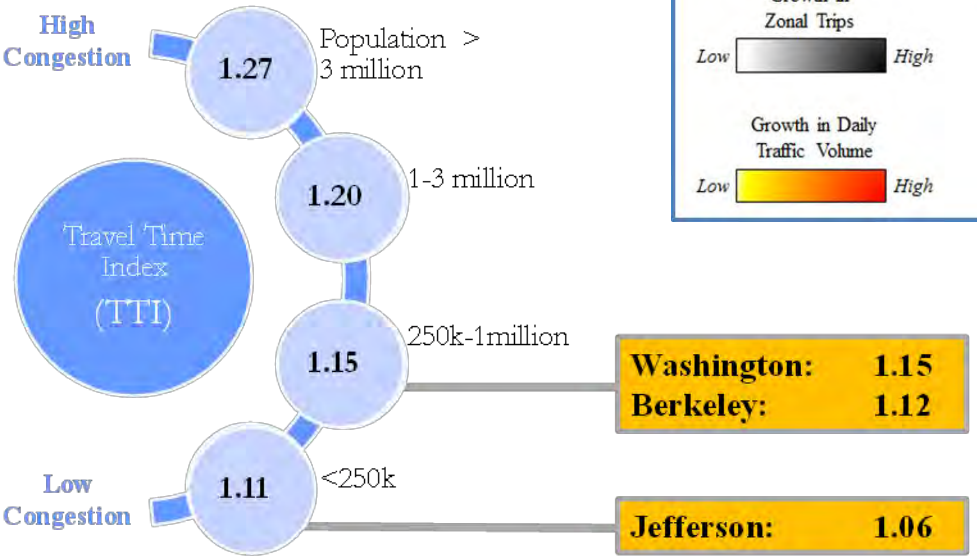
Review Recent Plans

Maryland Transportation Plan (Jan 2016)	MDOT Bike and Pedestrian Master Plan (Jan 2014)	Maryland Strategic Highway Safety Plan (Feb 2016)	Maryland Strategic Goods Movement Plan (2015)
WV Transportation Plan (On-going)	WV Freight Plan (On-going)	WVDOT Corridor Management Handbook	WVDOT Planning Guidance (On-going)
WVDOT Statewide Bike Plan (On-going)	US 340 Operational Improvements Study (On-going)	Jefferson County Comprehensive Plan (Jan 2015)	WV Strategic Highway Safety Plan (On-going)
Washington County Comprehensive Plan (on-going)	Berkley County Comprehensive Plan (Oct 2016)	**Other?**	

Existing and Future Conditions Analyses

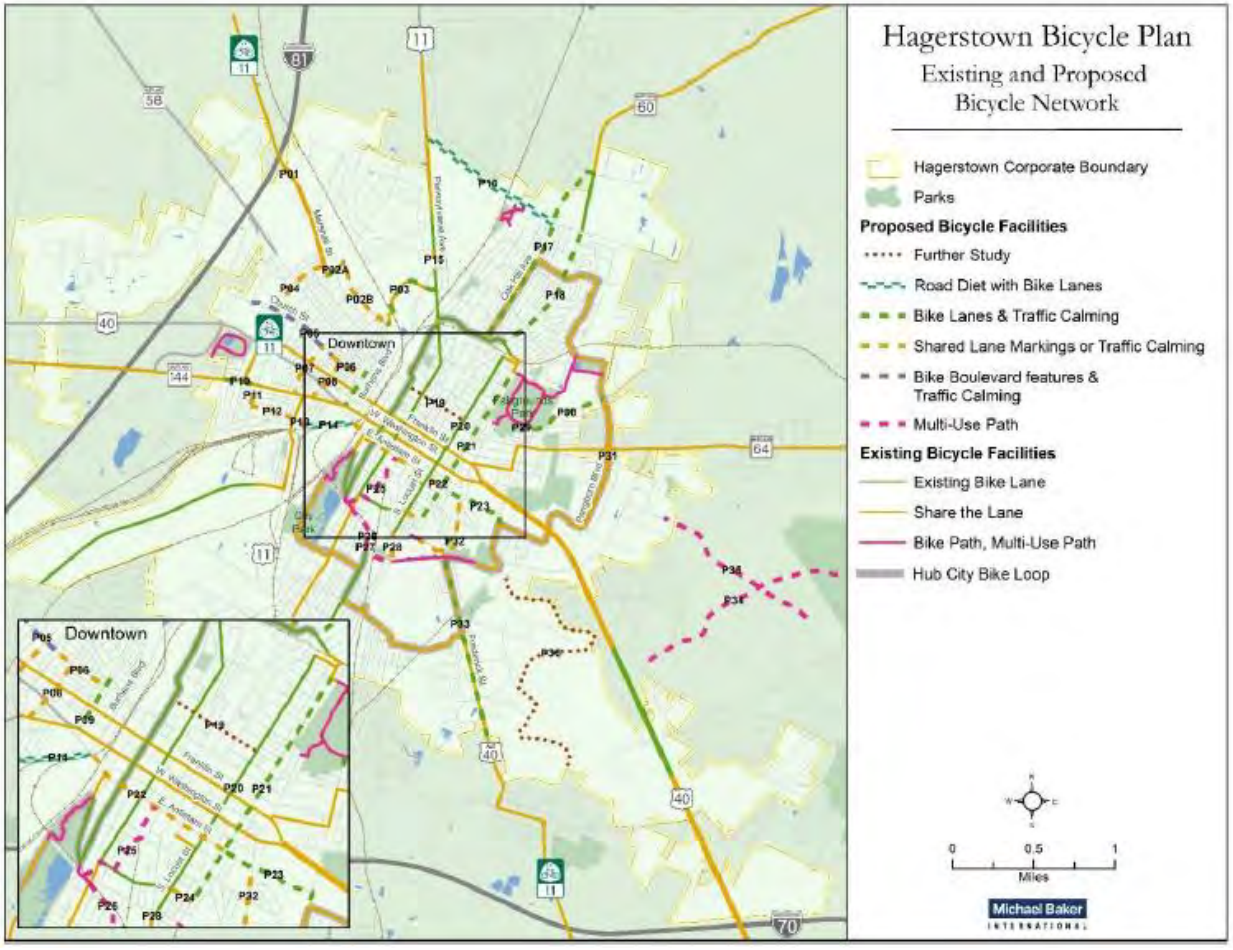
- Socioeconomic Forecast
- Scenario Planning
  - 2 Land Use Growth Scenarios
- Stakeholder / Public Input
- Congestion Analysis - Travel Time Index
- LOS Analysis
- Performance Measures





Multimodal Plans

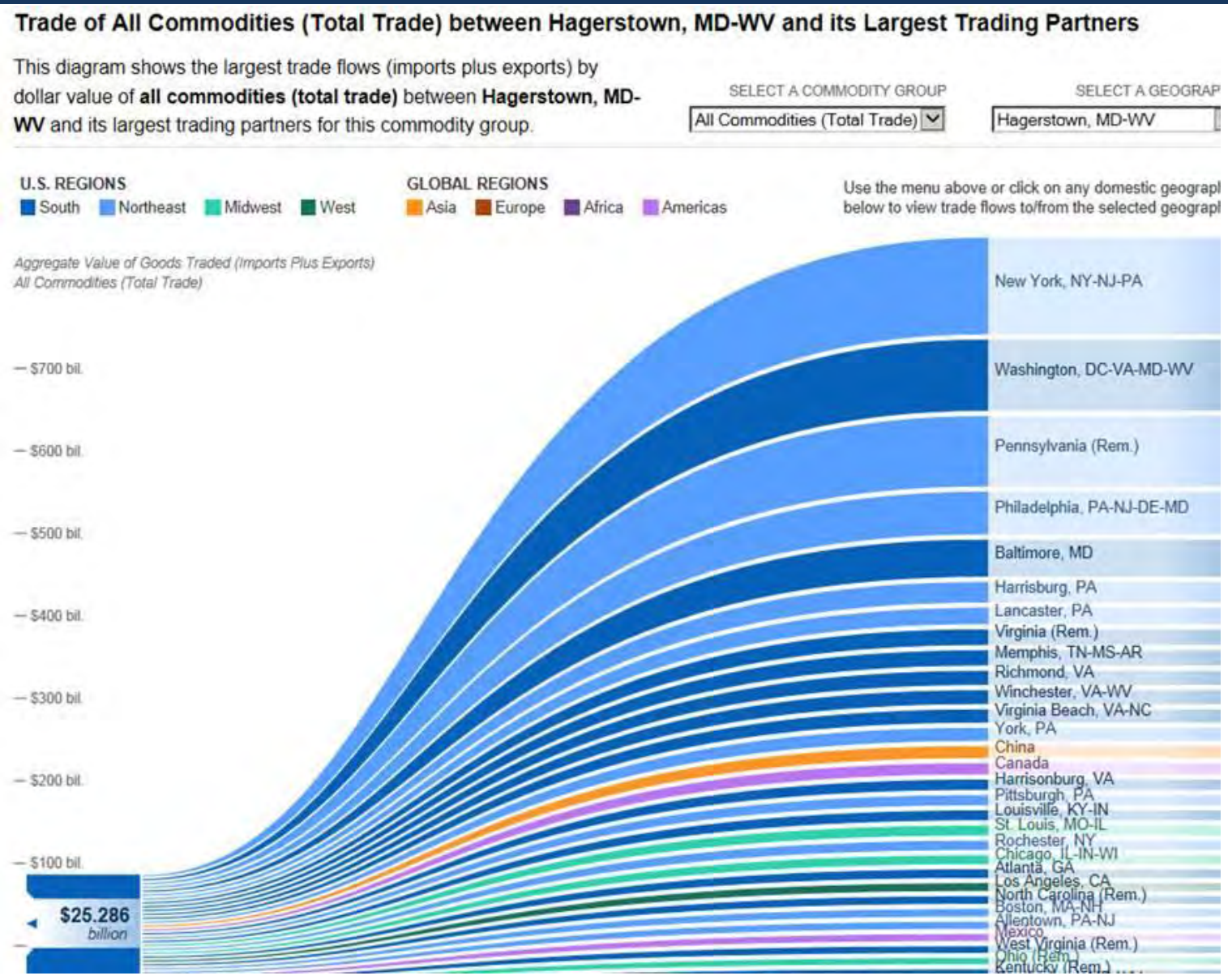
- Bicycle and Pedestrian Plans
  - HEPMPO Regional Bike Plan
  - Hagerstown Bicycle Master Plan



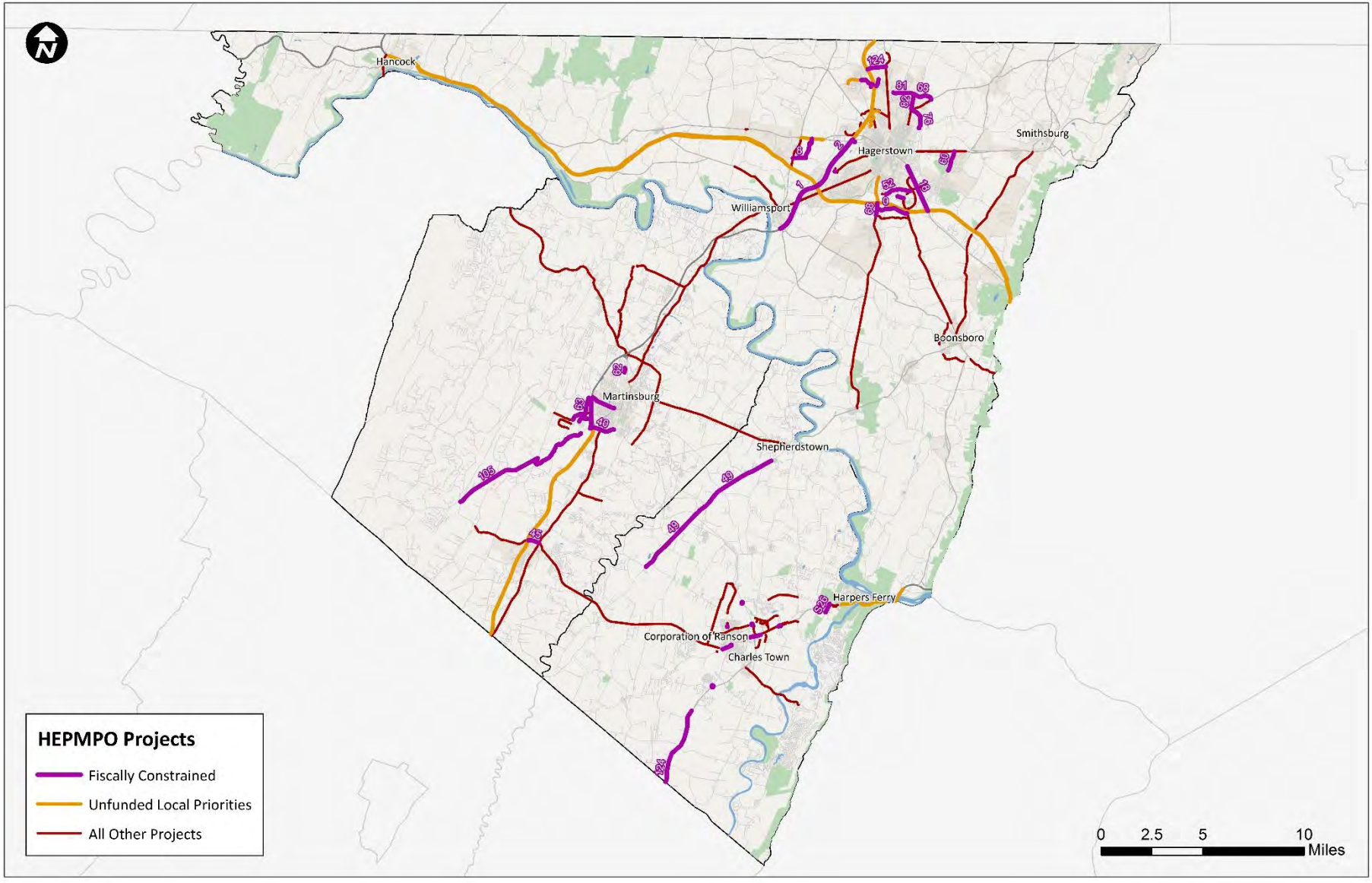
Multimodal and Other Plans

- Transit
- Asset Management
  - Current conditions and performance of transportation systems
- Resiliency
  - Extreme Weather Vulnerability
- Safety and Security
- Enhanced Freight
  - Regional Freight Profile
  - Freight Strategies – Performance Measures

Freight Movements



Project Needs



Project Prioritization / Financial Constraint

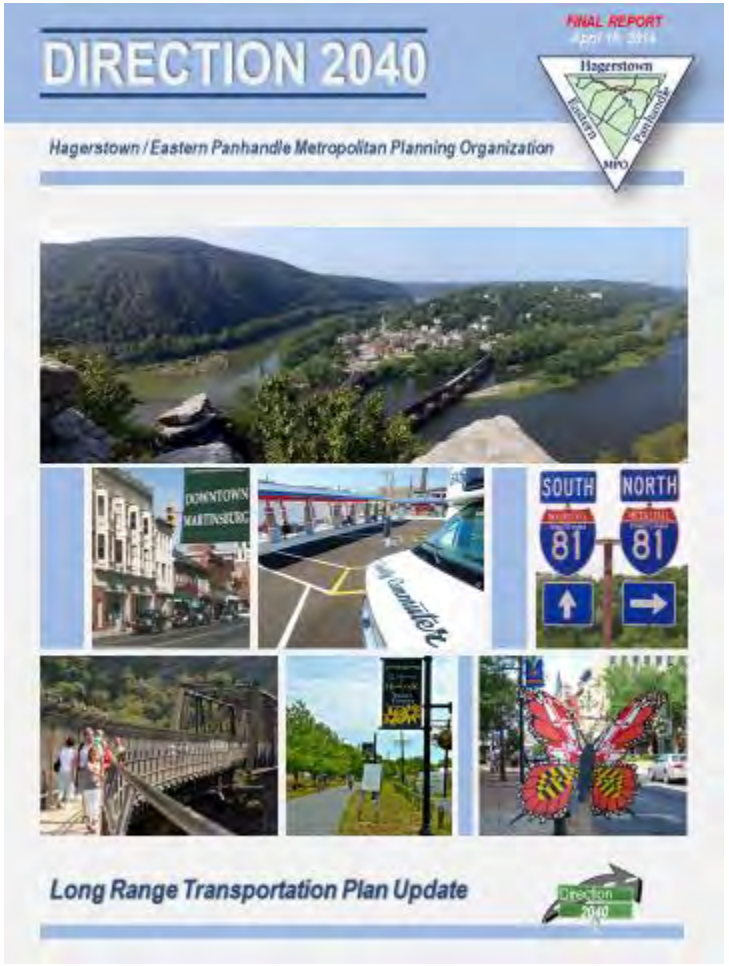
- Rating of Projects
- Review Prioritization Measures and Weighting
  - –New Measures?
  - –Revised weighting based on priorities?
- Latest DOT Funding Forecasts
- Fiscally Constrained Project Lists
- Performance Measures

Priority Measures

- Peak-Period Delays
- Reduction in VMT
- Reduction in Delay
- Goods Movement
- Transit Service Improvement
- Bike and Pedestrian
- Freight Mobility
- Safety
- Regional Growth Areas
- Cost Effectiveness
- Environment
- Local Priority
- Public Support

Rebranding the LRTP Report

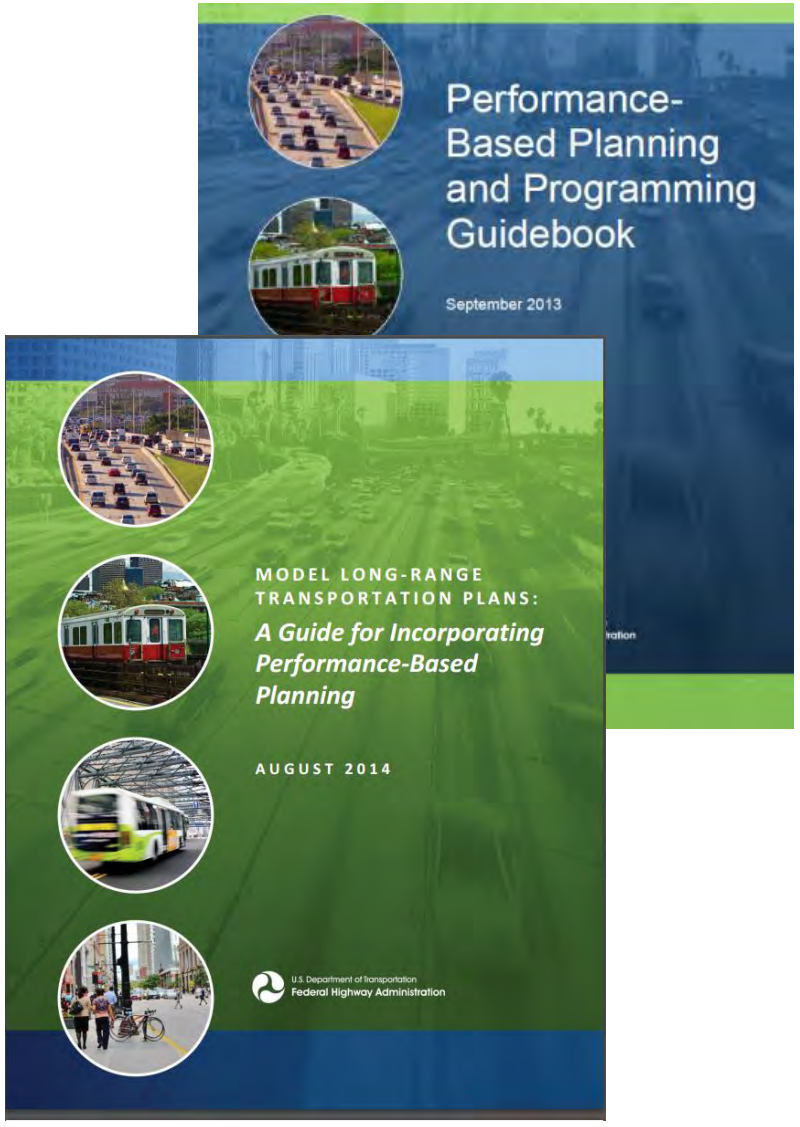
- FAST Act Compliant
- Stand alone - Executive Summary
- Performance Based



Goals and Objectives

Update of LRTP Goals and Objectives

- Foundation for **performance based planning** (FAST-ACT, MAP-21, FHWA Guidebooks)
- Should be developed in conjunction with stakeholders
- Not revised during last HEPMPO LRTP update



Performance Based Planning & Programming (PBPP)

- PBPP focus:
  - ❖ desired outcomes
  - ❖ outlines how to attain results
  - ❖ clarifies necessary resources
  - ❖ evaluates the results attained

Framework for PBPP

Integrating Goals – Objectives - Performance

Goals

Expands on the Vision Statement in seven areas of emphasis

Objectives

Defines focused elements of the Goals

Performance Measures

Tracks progress in achieving the Objectives and Targets

Strategies and Policies

Details an approach to meet the Performance Measures

Example of LRTP Application

Planning Process Level	Description		
Goal	4. The urbanized area transportation system will be secure from human and natural hazards		
Objectives	Implement at least two projects listed in the ITS Architecture Plan which benefit the security of the people, buildings, and infrastructure in the urbanized area by 2014	Create a plan detailing evacuation and emergency routes in the event of a human-made or natural disaster by 2014	Create a plan for the urbanized area that details transport routes for hazardous materials by 2019
Measures of Effectiveness	Number of ITS Projects Implemented	Creation of an Evacuation Plan	Creation of a Hazardous Materials Route Plan
Strategies	Continue the implementation of projects identified in the ITS architecture	Utilize travel demand modeling capabilities to determine the safest and most efficient evacuation routes	Consult with all necessary agencies to determine best routes for transporting hazardous materials in the urbanized area
	Consult with all necessary agencies to determine if projects need to be added or removed from the ITS project listing	Determine what changes need to be made to the current transportation system to implement evacuation and emergency routes	Determine what changes need to be made to the current transportation system to implement transport routes for hazardous materials
Responsible Parties	IDOT, CUUATS Staff, CUUATS Member Agencies, Emergency Responders	IDOT, CUUATS Staff, CUUATS Member Agencies, Emergency Responders	IDOT, CUUATS Staff, CUUATS Member Agencies, Emergency Responders

HEPMPO *Direction 2040* Goals

Goal 1: System Preservation and Mobility

- *Improve the existing transportation network through the use of comprehensive planning efforts that address a multimodal system.*

Goal 2: Multi-Modal Integration

- *Increase and promote an effective and efficient transportation network that is modally integrated.*

Goal 3: Community Vitality

- *Promote and fund a transportation network that will have a positive economic and social impact on the HEPMPO region.*

Goal 4: Land Use and Transportation Integration

- *Continue to minimize cost, seek alternative funding sources for an effective transportation network, and increase the use of smart growth practices.*

Goal 5: Environmental Stewardship

- *Minimize undesirable impacts of the transportation network on the environment.*

Goal 6: Emergency Preparedness

- *Coordinate area transportation efforts into a unified transportation network that will efficiently serve the region and support regional emergency preparedness and evacuation planning.*

Goal 7: Safety and Security

- *Promote a safe and secure public transportation network in the HEPMPO region.*

DOT Transportation Plan Goals

MDOT

- **Safety & Security**
  - *Enhance the safety of transportation system users and provide a transportation system that is resilient to natural or man-made hazards.*
- **System Preservation**
  - *Preserve and maintain the State's existing transportation infrastructure and assets.*
- **Quality of Service**
  - *Maintain and enhance the quality of service experienced by users of Maryland's transportation system.*
- **Environmental Stewardship**
  - *Ensure that the delivery of the State's transportation infrastructure program conserves and enhances Maryland's natural, historic and cultural resources.*
- **Community Vitality**
  - *Provide options for the movement of people and goods that support communities and quality of life.*
- **Economic Prosperity**
  - *Support a healthy and competitive Maryland economy*

WVDOT

- **Preserve past investments by maintaining the existing system**
- **Support West Virginia's economic development goals with multi-modal access to markets in West Virginia, the United States, and overseas**
- **Support the health and well-being of West Virginians, as well as the environment and overall quality of life, with a range of mobility options**
- **Promote efficient use of resources, especially in light of diminishing revenues**

National Goals and Planning Factors

FHWA National Goals

1. Safety
2. Infrastructure Condition
3. Congestion Reduction
4. System Reliability
5. Freight Movement and Economic Vitality
6. Environmental Sustainability
7. Reduced Project Delivery Delays

	FAST Act Planning Factors
	Support the economic vitality of the metropolitan area by enabling global competitiveness, productivity, and efficiency
	Increase the safety of the transportation system for motorized and nonmotorized users
	Increase the security of the transportation system for motorized and nonmotorized users
	Increase the accessibility and mobility of people and for freight
	Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
	Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
	Promote efficient system management and operation
	Emphasize the preservation of the existing transportation system
New	Improve resiliency and reliability of the transportation system and reduce impacts of surface transportation
	Enhance travel and tourism

Prioritization Measures for Goals

System Preservation and Mobility	• *Travel Time Delays, Reduction in VMT, Cost Effectiveness, Local Priority*
Multi-Modal Integration	• *Transit Service Improvement, Bike and Pedestrian*
Community Vitality	• *Travel Time Delays, Freight Mobility, Regional Growth Areas, Cost Effectiveness, Local Priority*
Land Use and Transportation Integration	• *Transit Service Improvement, Bike and Pedestrian, Regional Growth Areas, Local Priority, Public Support*
Environmental Stewardship	• *Travel Time Delays, Environment*
Emergency Preparedness	• N/A
Safety and Security	• Travel Time Delays, Safety, Local Priority, Public Support

Defining Objectives

- "SMART" objectives:
  - **S: Specific** - *"Decrease travel time delay…"*
  - **M**: **Measurable** - *"…by 10 percent"*
  - **A: Agreed**
  - **R**: **Realistic**
  - **T: Time-Bound** - *"…within 5 years."*

Goal	Initial objectives (identifying desired trend)	SMART objectives (identifying specific numerical targets)
Safety	Reduce pedestrian fatalities	Reduce pedestrian fatalities by 15 percent from 2010 levels by 2018.
	Reduce intersection crashes	Reduce serious (fatal/incapacitating injury) intersection crashes 10% by 2015.
Mobility	Reduce traffic delays	Reduce hours of delay per capita by 15 percent by 2030.

Review of *Direction 2040* Objectives

Goal 1: System Preservation and Mobility

Improve the existing transportation network through the use of comprehensive planning efforts that address a multimodal system.

Preserve the transportation network through **better coordination with transit providers**.

Improve thoroughfare traffic movements by **developing alternative routes** to relieve vehicular congestion and coordinate with public transit route planning.

Minimize traffic congestion by **promoting the utilization of the public transportation network**.

Provide **policies and infrastructure that strengthen modal integration** of the public transportation network, including bicycle and pedestrian facilities as more viable modes of transportation.

Continue **updates of transportation and comprehensive plans** to specifically address the issues of multi-modal integration, smart growth, and carbon emissions.

Review of *Direction 2040* Objectives

Goal 2: Multi-Modal Integration

Increase and promote an effective and efficient transportation network that is modally integrated.

Encourage land use policies that promote transit and other travel modes in local and regional plans.

Improve circulation to avoid conflicts with thoroughfare traffic by **utilizing better planning efforts** on local and regional levels.

Encourage smart growth practices to be integrated into the coordination of public infrastructure, transportation networks and the regional planning process.

Promote effective planning practices and the use of bicycle and pedestrian facilities.

Encourage and promote additional **funding for bicycle and pedestrian facilities.**

Review of *Direction 2040* Objectives

Goal 3: Community Vitality

Promote and fund a transportation network that will have a positive economic and social impact on the HEPMPO region.

Develop consistency between jurisdictions when updating city, town and county transportation and comprehensive plans.

Improve access to and from commercial districts, residential areas, and other activity centers.

Promote a transportation network that will assist in the economic strengthening of the region by linking the transportation network with existing and future business needs.

Increase and locate additional **funding sources for the support and utilization of alternative modes of transportation**.

Review of *Direction 2040* Objectives

Goal 4: Land Use and Transportation Integration

Continue to minimize cost, seek alternative funding sources for an effective transportation network, and increase the use of smart growth practices.

Increase multi-modal integration on a regional basis in a cost effective manner.

Minimize regional capital costs by **coordinating with transit providers in planning facilities and utilization of equipment**.

Use smart growth planning and practices to minimize cost on a regional basis.

Review of *Direction 2040* Objectives

Goal 5: Environmental Stewardship

Minimize undesirable impacts of the transportation network on the environment.

Minimize fuel consumption by **decreasing vehicle miles traveled**.

Minimize residential, commercial, and industrial displacements.

Minimize negative impacts on existing land uses by **integrating smart growth practices**.

Promote coordination of planning to **avoid disturbance of sensitive natural areas and environments** which are unique and have historical value.

Reduce single occupancy vehicle trips and vehicle miles traveled to decrease environmental impacts and carbon emissions.

Review of *Direction 2040* Objectives

Goal 6: Emergency Preparedness

Coordinate area transportation efforts into a unified transportation network that will efficiently serve the region and support regional emergency preparedness and evacuation planning.

Develop regional safety and security plans for the transportation network.

Develop evacuation plans that coordinate local resources and transportation infrastructure in the region.

Reduce the vulnerability of the transportation network by **developing short and long range strategies** that address emergency preparedness and evacuation planning.

Review of *Direction 2040* Objectives

Goal 7: Safety and Security

Promote a safe and secure public transportation network in the HEPMPO region.

Develop plans and studies to **address transportation security needs**.

Increase the level of security in urban areas.

Facilitate the coordination of agencies, responders, and departments (transportation and non-transportation) for emergency preparedness.

Use intelligent transportation systems to increase safety on roads and efficiency in public transit systems.

Utilize dedicated funding to **enhance safety planning and programs**.

Additional Objectives

- Objectives for new goals?

Schedule / Next Steps

LRTP Task Schedule

Long Range Transportation Plan Schedule to Complete

		Months from Notice to Proceed																					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
		Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
	Project Management Plan	FY2017										FY2018											
	PMAC Webinar				●											●							
	TAC Meetings			●							●						●				●		
	Freight Committee Inverviews/Meetings											●				●							
	Public Meetings									●											●		
	AQAC Meetings																●			●	●		
	ISC																					●	
1	**Update Goals and Objectives**																						
2	**Develop Performance Measures and Targets**																						
3	**Origin and Destination Assessment**																						
4	**Transcad Travel Model Validation**																						
5	**Public Involvement Plan**																						
6	**Data Collection**																						
7	**Socioeconomic Forecasting and Analysis**																						
8	**Highway Congestion and Safety Analysis**																						
9	**Asset Management and Resiliency**																						
10	**Highway Element**																						
11	**Transit Element**																						
12	**Bicycle and Pedestrian Element**																						
13	**Freight Element**																						
14	**Safety and Security Element**																						
15	**Financial Constraint**																						
16	**Project Prioritization and Fiscally Constrained Project list**																						
17	**Transportation Conformity Analysis**																						
18	**Draft and Final LRTP Document**																				Draft		Final

Action Items and Next Steps

- Action Items and Coordinating Efforts
  - –Activate Website
  - –Data Collection efforts
  - –County/MPO Coordination

- Next Steps
  - –Performance Measures and Target Development
  - –O/D Assessment
  - –Travel Model Validation
  - –Highway Congestion Analysis

- Questions?

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