

Visualize 2045 update:

Planning Assumptions Review

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visualize
2045 A long-range
transportation plan
for the National
Capital Region



(Cook/TPB)

Source: Flickr/BeyondDC

LRTP: Federal Purpose

- MPOs created to ensure regional cooperation in transportation planning, in particular for air quality
- Fiscal constraint required to ensure plan isn't a 'wish list'
- Numerous planning requirements: based on sound technical assumptions and best available data

Federal due date and requirements have not changed



Planning in Times of Uncertainty

- The future is never certain – but in the last few years there have been new global forces
 - Global economy
 - Climate change
 - New technologies
 - Population and employment growth
 - Increased urbanization

- And now....



Planning in Times of Uncertainty

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 - Global economy
 - Climate change
 - New technologies
 - Population and employment growth
 - Increased urbanization

- **And now...**a global pandemic

- Where will the people and jobs be?
- How will people travel?
- What funding will we have to invest in and maintain the system?
- How do we make the best investment choices?



Planning Assumptions

Topic	Common questions about Covid-19 Impacts
Financial Plan	How does Covid-19 impact long-term revenue assumptions?
Population and Employment forecasts	How much will Covid-19 impact where people live and work?
Modeling/Analysis	How will Covid-19 impact travel type preferences or amount of travel?
Strategies for the Future	How do we make the best investments?

Federal Requirements: Financial Plan

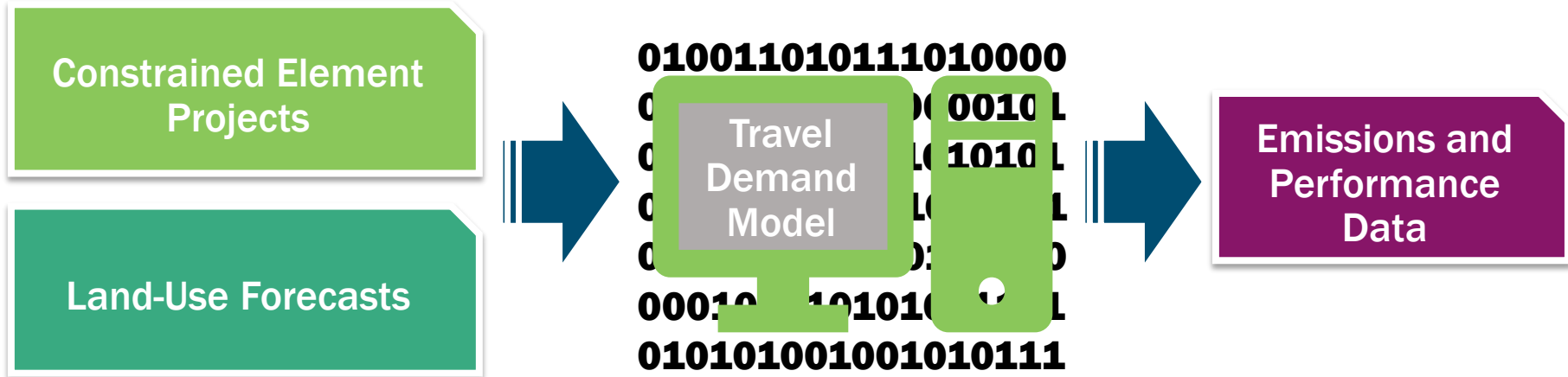
- *(11) A financial plan that demonstrates how the adopted transportation plan can be implemented.*
- *For purposes of transportation system operations and maintenance, the financial plan shall contain **system-level estimates of costs and revenue sources** that are reasonably expected to be available to adequately operate and maintain the Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).*
- *(ii) For the purpose of developing the metropolitan transportation plan, the MPO(s), public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under § 450.314(a). All necessary financial resources from public and private sources that are **reasonably expected** to be made available to carry out the transportation plan shall be identified.*

Excerpts from: 23 CFR § 450.324 - Development and content of the metropolitan transportation plan

Planning Assumptions: Financial Plan

- Visualize 2045 (2022) Update will cover period 2023 - 2045
- For the near-term years, agencies use revenue and expenditure budgets from Capital Improvement Programs (CIPs), the approved TIP and other approved budget documents
- For long-term years:
 - Revenues are estimated from extrapolation of past trends as well as assumptions about future increases (beyond current legislation and appropriations)
 - Expenditures are developed from project costs in the LRP project database as well as extrapolated costs for maintenance and operations

Analyzing System Performance



- Round 9.2 Cooperative Land-Use Forecasts
- Version 2.4 Travel Demand Model
- Analysis of TPB Planning Area
- 2020 Vehicle Registration Data (or latest available decoded dataset)
- EPA's MOVES 2014b Mobile Emissions Model

Federal Requirements: Cooperative Forecast

- *(e) The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the transportation plan. In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for **population, land use, travel, employment, congestion, and economic activity**. The MPO shall approve transportation plan contents and supporting analyses produced by a transportation plan update.*

Excerpts from: 23 CFR § 450.324 - Development and content of the metropolitan transportation plan

Planning Assumptions: Cooperative Forecast

- Long-range forecasts: do not account for short term variations
- Round 9.2, when approved for inclusion in the Visual 2045 analysis, will represent a technical update to the Round 9.0 forecast.
- Effects of COVID-19 on the timing and distribution of future growth are not accounted for in this technical update.



The next major round, Round 10, will be prepared in the future and will consider results from the 2020 Census as well as other applicable global, national, and regional demographic and market trends

Federal Requirements: Model Inputs

(f) The metropolitan transportation plan shall, at a minimum, include:

*(1) The **current and projected transportation demand** of persons and goods in the metropolitan planning area over the period of the transportation plan;*

*(2) **Existing and proposed transportation facilities** (including major roadways, public transportation facilities, intercity bus facilities, multimodal and intermodal facilities, nonmotorized transportation facilities (e.g., pedestrian walkways and bicycle facilities), and intermodal connectors) that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the period of the transportation plan*

Excerpts from: 23 CFR § 450.324 - Development and content of the metropolitan transportation plan

Planning Assumptions: Model Inputs/Analysis

- **The base transit**, on which all future transit service is built, reflects December 2019 schedules, so as not to reflect COVID-related decreases in service
- **Transit fares** in the travel model are current to what is shown on provider's websites in January 2021 including the current WMATA Tariff #36 (effective July 2019).
- **Highway tolls** in the travel model are current to January 2021



Planning Assumptions: Model Inputs/Analysis tools

- **Vehicle fleet data**, which are used for estimating mobile emissions, are current to December 2020
- **The Version 2.4 Travel Demand Model**, expected to be used for this analysis, is validated to pre-COVID conditions



Federal Requirements: Strategies

Requirements language as to:

- *Operational and management strategies and results of the congestion management process*
- *strategies to preserve the existing and projected future metropolitan transportation infrastructure,*
- *multimodal capacity increases based on regional priorities and needs and to reduce the vulnerability of the existing transportation infrastructure to natural disasters.*
- *Transportation and transit enhancement activities*
- *Pedestrian walkway and bicycle facilities*
- *Safety: should integrate the priorities, goals, countermeasures, strategies, or projects for the metropolitan planning area contained in the HSIP, including the SHSP*
- *And more...*

Excerpts from: 23 CFR § 450.324 - Development and content of the metropolitan transportation plan

Strategies for an Uncertain Future

- TPB policy priorities focus on desired outcomes that remain unchanged:
 - Moving more people and reducing congestion by providing a range of choices and operational efficiencies
 - Mitigating greenhouse gasses and other transportation emissions
 - Adapting our transportation system to be resilient and reliable in the face of climate change
 - Creating a more equitable region and improving safety through transportation planning and investment



Scenario Planning

- TPB will continue to:
 - conduct analysis
 - examine future scenarios
 - help to inform the best transportation strategies for the future



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