



Baltimore Regional Transportation Board

Introduction to the 2027 LRTP and LRTP Scenario Planning

Cooperative Forecasting Group

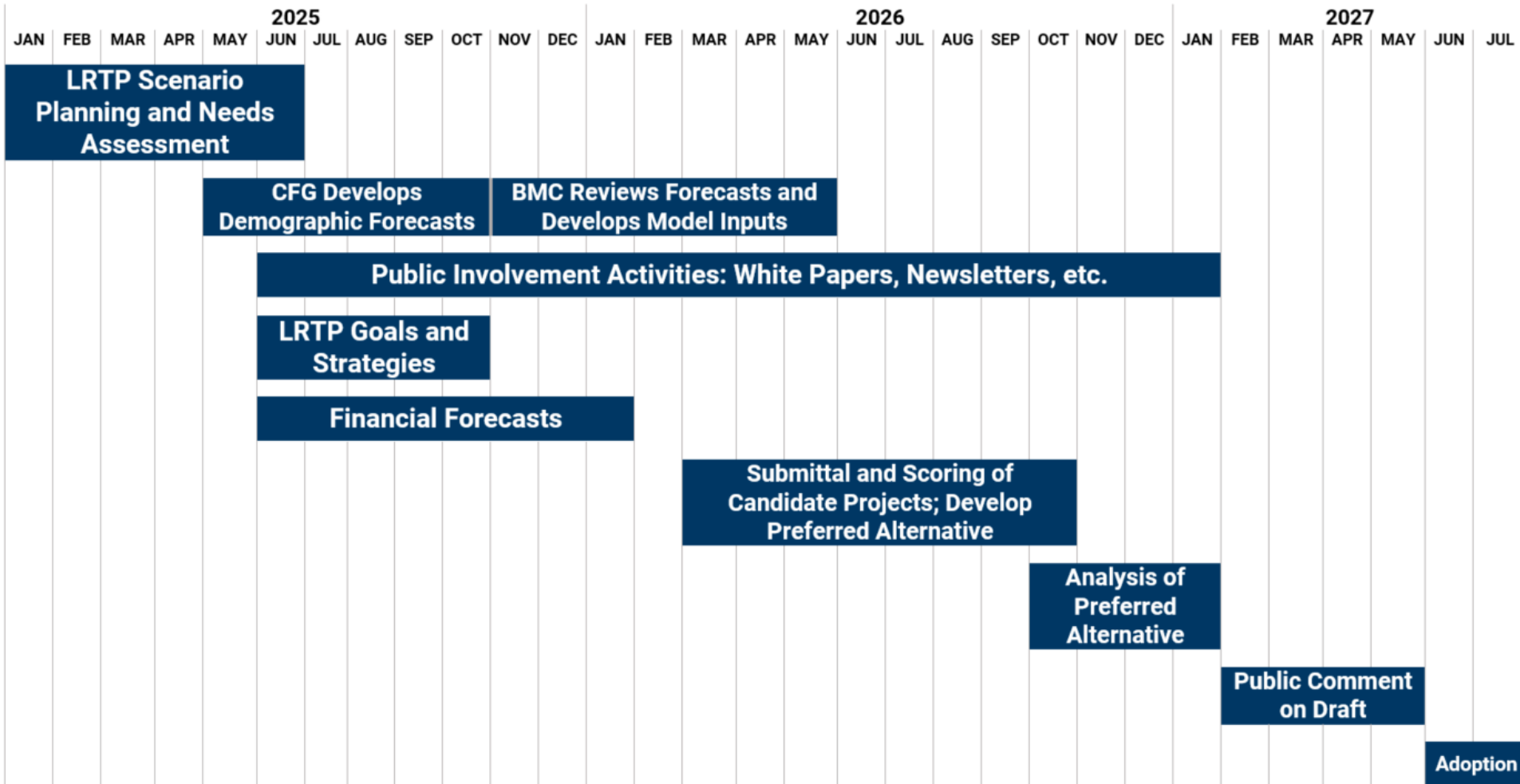
December 18, 2024



What is the LRTP?

- Addresses at least a 20-year planning horizon beyond timeframe covered by the TIP
- Updated every 4 years (in non-attainment areas)
- Financially constrained
- Core of the plan is a list of planned major federally funded capital projects, their estimated costs, and the revenues expected to be available to fund the projects
- Also:
 - Provides a transportation vision for the region through adopted goals and strategies
 - Details socioeconomic, environmental, and other factors that will affect the operation of the transportation system over the next 20-25 years

L RTP Development Process



Regional Goals

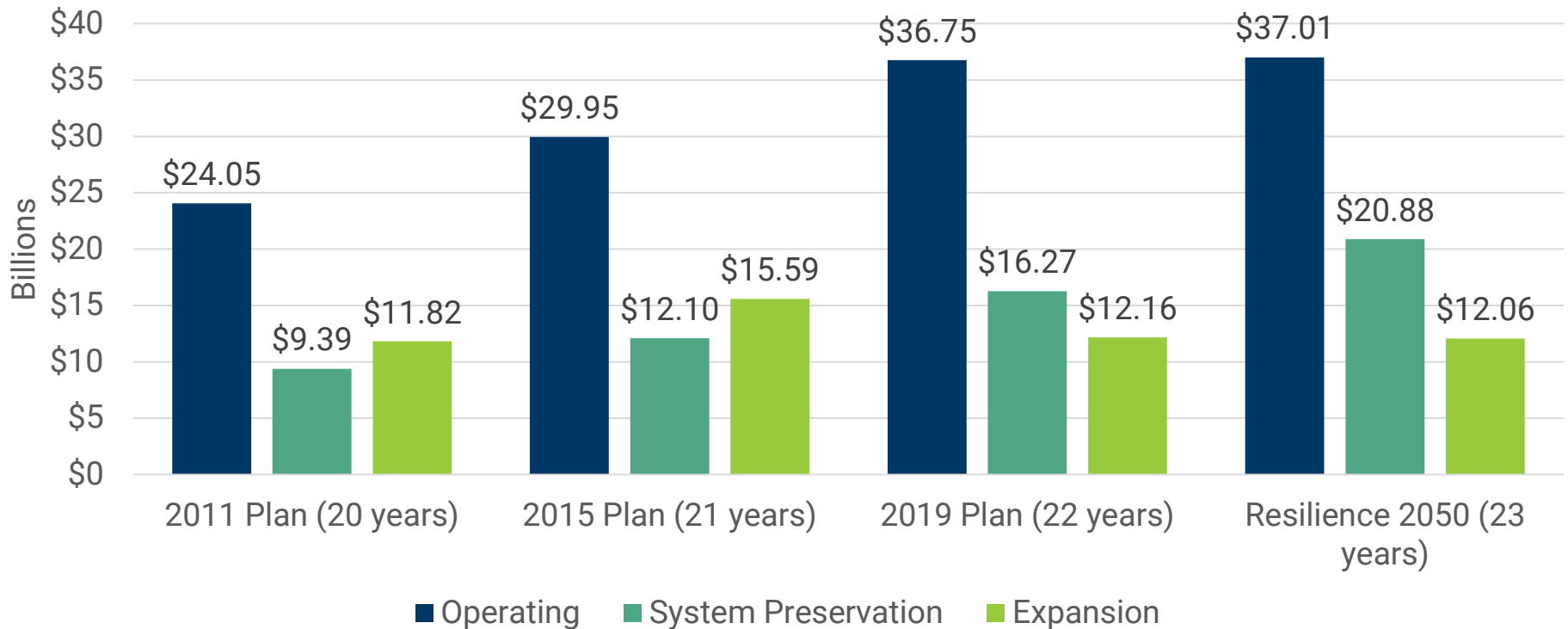
- Timeframe: June 2025 – October 2025
- Form the transportation vision for the region
- 9 Goals in total based on federal and state requirements, trends and technologies, and public comment:
 - Goals that address the basic functions of transportation:
 - Improve Accessibility
 - Increase Mobility
 - Goals that address the conditions or effects of transportation:
 - Improve System Safety
 - Improve and Maintain the Existing Infrastructure
 - Implement Environmentally Responsible Transportation Solutions
 - Improve System Security
 - Promote Prosperity and Economic Opportunity
 - Goals that address the transportation decision making process:
 - Foster Participation and Cooperation Among Stakeholders
 - Promote Informed Decision Making

Financial Forecast

- Financial Forecast
 - Timeframe: June 2025 – January 2026 (BRTB vote)
 - MDOT provides a forecast of anticipated **federal and state** revenues through 2055 for:
 - System preservation
 - Operations
 - Expansion
 - Pay for System Preservation and Operations needs first
 - Expansion = Total Revenues – (System Preservation + Operations)
 - Most LRTP projects are large-scale capital projects competing for expansion funds
 - BMC also developed a tool in FY 2022 to estimate **local** revenues available for transportation

Financial Forecast

L RTP Comparison: Funds by Category



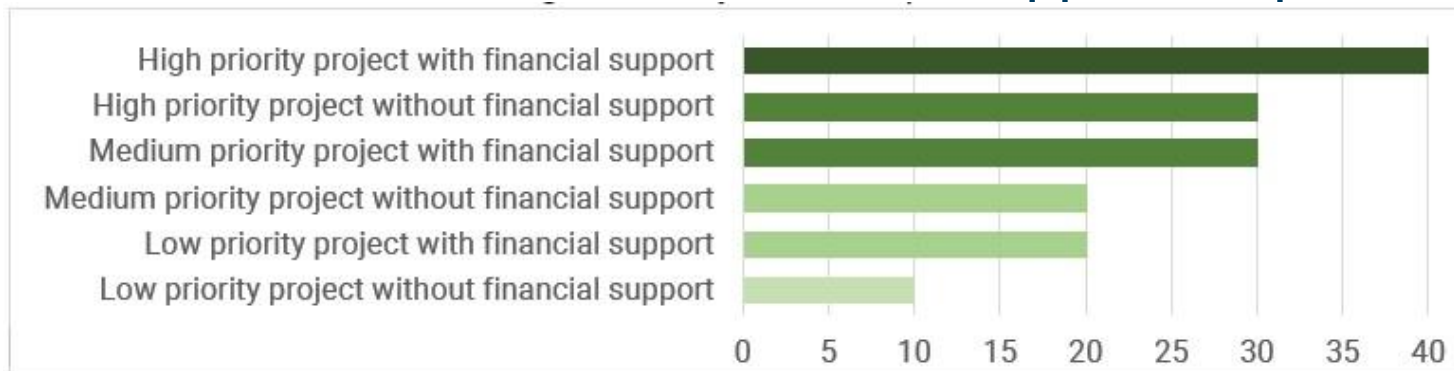
Project Submittal

- Timeline: March – May 2026
- The project scoring process begins with the submittal of candidate projects by the following jurisdictions and agencies* during the call for projects:
 - City of Annapolis
 - Anne Arundel County
 - Baltimore City
 - Baltimore County
 - Carroll County
 - Harford County
 - Howard County
 - Queen Anne’s County
 - MDOT Maryland Transit Administration

**MDOT SHA does not directly submit projects. Local jurisdictions coordinate with MDOT SHA and submit all projects within their jurisdiction, including those on state roadways*

Project Scoring

- Updated methodology adopted for last LRTP; minor updates anticipated for next LRTP
- Timeline: May – July 2026
- Project scoring composed of two elements:
 - Policy Score (up to 40 points)
 - Priority Score:
 - High Priority (up to 5 projects): 30 points
 - Medium Priority (up to 4 projects): 20 points
 - Low Priority (unlimited): 10 Points
 - Demonstrated Financial Support: 10 points



Project Scoring

- Project scoring composed of two elements:
 - Technical Score for transit (up to 55 points) and highway (up to 50 points):

GOAL/CRITERIA	TECHNICAL SCORING POINTS: TRANSIT PROJECTS	TECHNICAL SCORING POINTS: HIGHWAY PROJECTS
Safety*	10	10
Accessibility - Complete Streets*	5	5
Accessibility - Access to Jobs*	10	5
Mobility	10	10
Environmental - Effects on ecologically sensitive lands and culturally sensitive resources*	5	5
Environmental - Potential for Greenhouse Gas Emissions Reductions	5	5
Security*	5	5
Economic Prosperity	5	5
Total Technical Points	55	50

Project Selection and Preferred Alternative

- Timeline: August 2026 – October 2026
- Technical and Policy scores totaled
 - Max of 40 policy + 50 technical = 90 points for highway projects
 - Max of 40 policy + 55 technical = 95 points for transit projects
 - Transit given an advantage due to public comments encouraging the BRTB to focus on transit accessibility, reliability, and frequency and reducing the focus on roadway widening and cars
- Preferred alternative of projects based on project scores, estimated project costs, expansion funds available to the region, and committee input

An (overly) simple example...

Project Name	Project Score	Project Cost	Funding Left (\$100 Total)
Project A	87	\$30	\$70
Project B	84	\$15	\$55
Project C	75	\$20	\$35
Project D	63	\$35	\$0
Project E	55	\$20	\$0
Project F	52	\$25	\$0



Preferred Alternative

Use of CFG Round 11 Forecasts

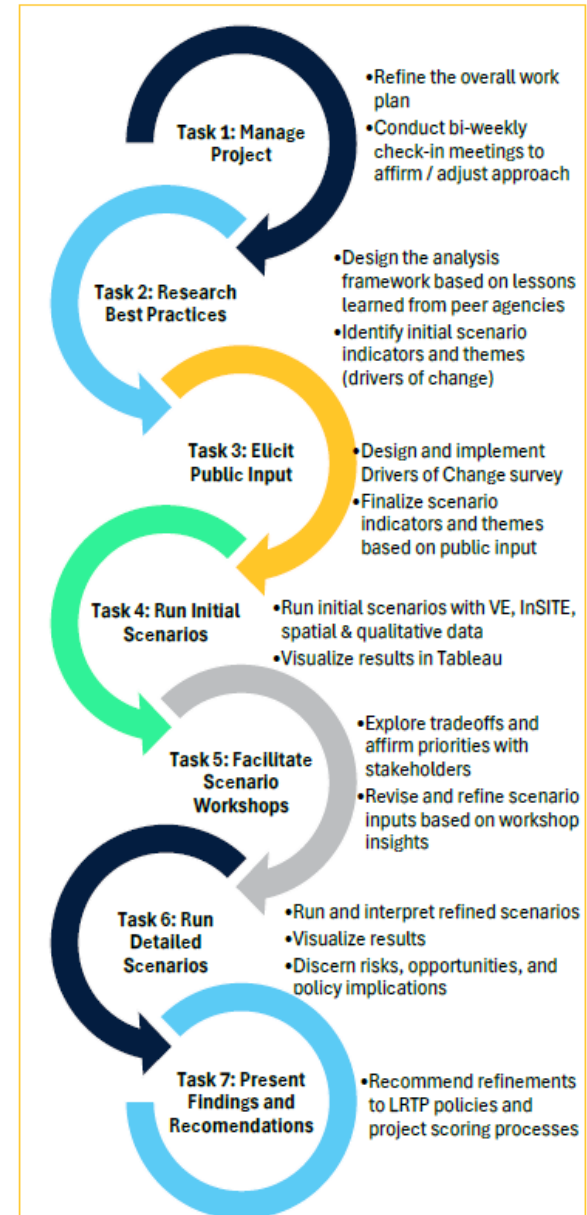
- Timeline:
 - CFG Develops May – October 2025
 - BMC reviews and develops model inputs November 2025 – May 2026
- Forecasts are key inputs to BMC travel demand model for horizon years (2035, 2045, 2055)
- Key uses include:
 - Project scoring: Accessibility and Mobility criteria rely on forecasts to calculate access to jobs, congestion, and transit connectivity
 - Analysis of the potential effects of the preferred alternative:
 - Timeline: October 2026 – January 2027
 - Travel Demand Modeling:
 - Analysis of trip purposes, Vehicle Miles Traveled, Congestion, etc. for horizon years through 2055
 - Air Quality Conformity:
 - Baltimore region does not attain federal air quality standard for ground level ozone
 - BMC analyzes projected emissions from implementing the preferred alternative compared to MDE budgets for horizon years

Use of CFG Round 11 Forecasts cont.

- Environmental Justice Analysis:
 - EJ seeks to ensure that the benefits and burdens of transportation investments are shared as equitably as possible
 - Federal USDOT order directs consideration of low-income and minority populations
 - Use Travel Demand Model to compare how travel patterns and potential impacts differ for EJ and non-EJ populations for a variety of measures (from prior LRTP):
 - Jobs accessible
 - Shopping opportunities accessible
 - Average commute time
 - Average travel time for shopping purposes
 - Average travel time to closest hospital
 - Share of the population close to key destinations (food stores, hospitals, educational institutions)

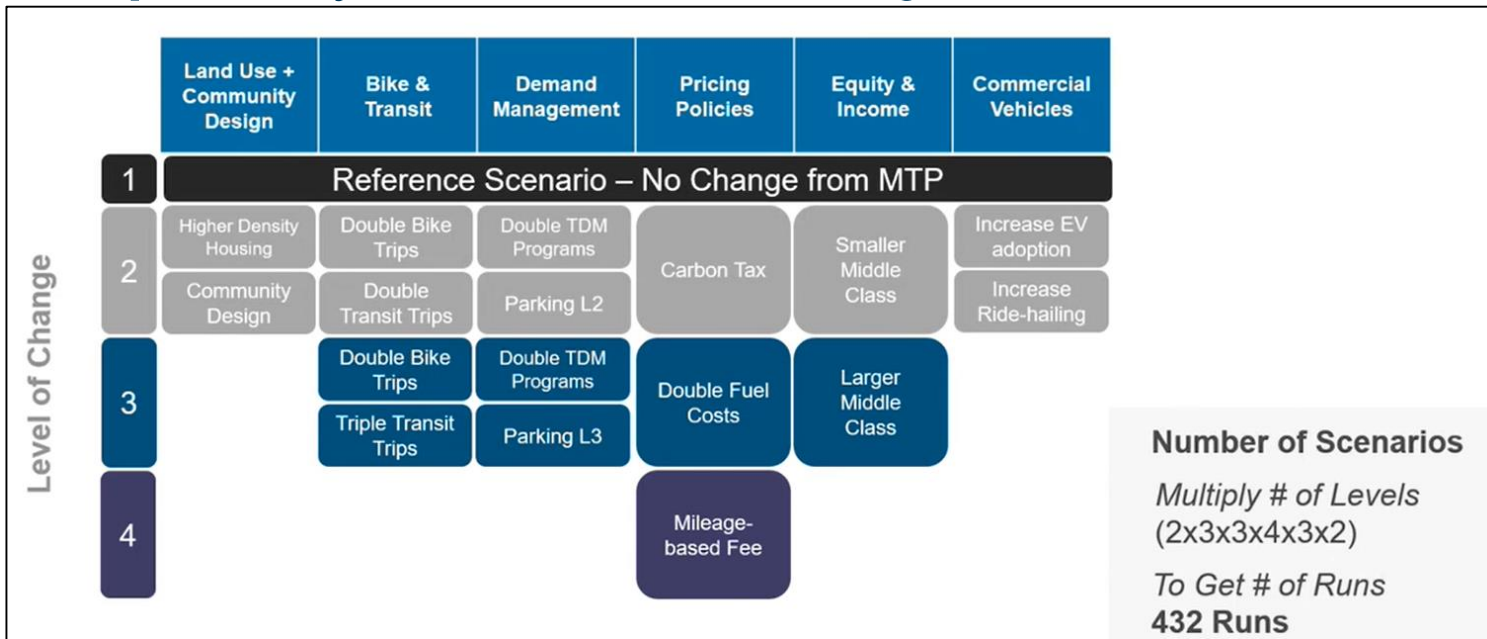
L RTP Scenario Planning: Project Purpose

- Identify strategies and policies that work well under multiple scenarios
- Inform 2027 L RTP
- Explore the potential impacts of uncertain future conditions related to:
 - Transportation investments
 - Transportation policy decisions
 - Socioeconomic changes
 - Housing
 - Technology
 - Environmental impacts
- Analyze impacts on equity emphasis areas in the Baltimore region



L RTP Scenario Planning: Analysis Tools

Sample analytical framework using VisionEval:



Identify promising scenarios

Run limited number of scenarios InSITE model and factor in off model inputs (climate resilience, equity indicators)

L RTP Scenario Planning: Progress

- Contract awarded to ICF, with project Kickoff in September
- Peer agency scan underway to identify:
 - Scenario planning best practices
 - Stakeholders included
 - How their scenario planning exercises impacted policy and/or the Long-Range Transportation Plan
 - How their exercises influenced equity-related policy and practices
- Peer Agencies:
 - Anchorage MPO
 - Atlantic Regional Commission
 - Boston MPO
 - Chittendon County RPC
 - DVRPC (Philadelphia MPO)
 - Durham Chapel Hill Carrboro MPO
 - Houston-Galveston Area Council
 - Minnesota DOT
 - Virginia DOT

What choices should we make when planning for the future of our region?

Forecasts by the Houston-Galveston Area Council predict that by the year 2040, our region will:

- Grow by 3.5 million people
- Gain 1.9 million jobs
- Become a "majority minority" population

For this survey, please consider three possible futures for the region. Each represents one of the top three areas residents indicated were important during a survey conducted in early 2012 - **Less Time on the Road**, **Greener Region**, **Competitive Workforce**. As a baseline when thinking about these three alternative futures, please consider the **Current Course**, or what the future may look like if we don't make any changes to our current growth, environmental and educational trends.

2040 Current Course

- Existing trends continue
- No major policy changes
- Most of growth occurs outside of existing towns and cities
- Traffic congestion increases
- Large amount of natural areas lost to development
- Education concerns not addressed, leading to a less competitive workforce

2040 Alternative Future: Less Time on the Road

- Reduction in travel times, costs
- Most of growth occurs in existing places
- More jobs and housing located closer together
- Some new housing is smaller sized, in walkable areas
- More investment in sidewalks, bikeways, public transportation
- Better air quality

2040 Alternative Future: Greener Region

- Air and water quality improved
- Development reduced in flood and storm surge vulnerable areas
- Best natural areas preserved
- New businesses, workers, tourists attracted by natural areas
- Greener practices adopted by local governments

2040 Alternative Future: Competitive Workforce

- Increase in education attainment of residents
- Community factors, such as poverty and crime, addressed
- Highly skilled workforce
- Competitive economic region
- Good jobs and job training opportunities

L RTP Scenario Planning: Progress

- “What If?” Survey conducted from Nov 19 – Dec 15
- Survey intended to gather input on:
 - Scenario Categories
 - Transportation Investments
 - Transportation Fees and Incentives
 - Housing and Land Use
 - Demographic Shifts
 - Economic Forces
 - Technological Change
 - Variables within categories
 - Transportation Investments: Expand transit, bike/ped, TSMO/TDM, and/or roadway widening; maintain existing infrastructure
 - Measuring outcomes: Access, Mobility, Safety, Environmental Conservation, Economic Prosperity
- More than 500 participants

L RTP Scenario Planning: Progress

Sample social media ad:

What if the future brings ...?

More extreme weather events

Lots of new housing

More autonomous vehicles

Free transit

Help us ask the **RIGHT QUESTIONS**

BALTIMORE METROPOLITAN COUNCIL

BRTB
Baltimore Regional Transportation Board

We're planning for the future.
What are your biggest concerns around transportation, housing, climate, and more?

TAKE A SHORT SURVEY
for a chance to win a \$50 gift card!

publicinput.com/WhatIf

Screenshot from survey:

Drivers of Change: Policies

Question 1. We have identified three areas where elected officials can take action to prepare for the future. **Which ones are most important?**

- Please drag and drop the options in each category. Order each list with what is most important at the top.
- Is there something else we should consider? Use the "Click here to add your own idea" option.
- If a policy is not important to you, or if you are unsure, you do not have to rank it.

Transportation Improvements

Transportation Improvements

YOUR TOP PRIORITY

- More transit service
- Improving biking and walking in the region
- Tactics to reduce traffic
- Expanding the road network
- Keeping our existing transportation in good condition
- Click here to add your own idea

Ways to Pay for Transportation Infrastructure

Ways to pay for Transportation Infrastructure

YOUR TOP PRIORITY

- Greenhouse gas emissions tax (e.g., CO2 emissions from gas and diesel fuel)
- Congestion pricing (i.e., charging vehicles on certain roads during rush hour)
- Free or low-cost transit rides
- Charging more to park your car or reducing the availability of parking
- Click here to add your own idea

L RTP Scenario Planning: Upcoming

- Continuing to build out VisionEval model (expanding to include York and DC MPO regions)
- January 2024: Technical Committee meeting will include a work session and presentation on recommended scenario categories, variables and performance measures
- January 2024: VisionEval and InSITE model runs
- February 2024: Scenario workshops including (a) BRTB and subcommittee members; (b) Local/State Housing and Planning staff; (c) Non-profit and Business Organizations

For More Information

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