

2045 LONG-RANGE TRANSPORTATION PLAN: STATUS UPDATE

Community Advisory Committee
September 10, 2020

Dale M. Stith, AICP, GISP
Principal Transportation Planner



- **Blueprint** for the region's transportation future
- Identifies all **regionally significant transportation projects**
- **Planning horizon of 20 years** and is updated every 5 years
- **"Fiscally-Constrained"** demonstrating how projects will be funded



2045 LRTP: CURRENT KEY MILESTONES



Approved Socio-economic Forecast and TAZ Allocation

Updated Regional Travel Demand Model

Identified Candidate Projects

Scenario Planning Analysis

Develop Financial Plan



Approved Scenario Planning Framework

LRTP Vision & Goals

Finalized Updates to Project Prioritization Tool

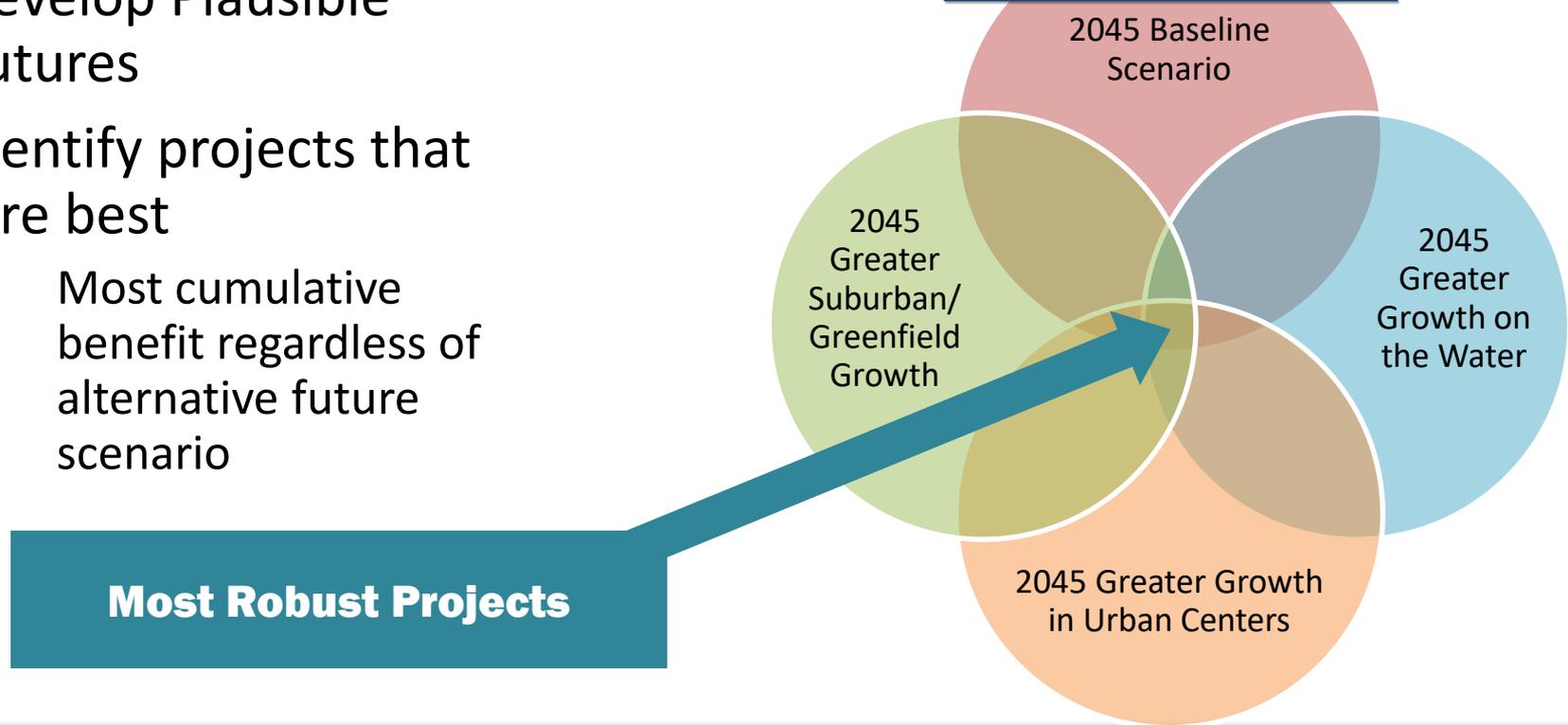
Project Prioritization and Evaluation of Candidate Projects

Develop Final List of Projects

2045 LRTP Adoption Date: June 2021

- Develop Plausible Futures
- Identify projects that fare best
 - Most cumulative benefit regardless of alternative future scenario

EVALUATE AND RANK PROJECTS ACROSS ALL SCENARIOS

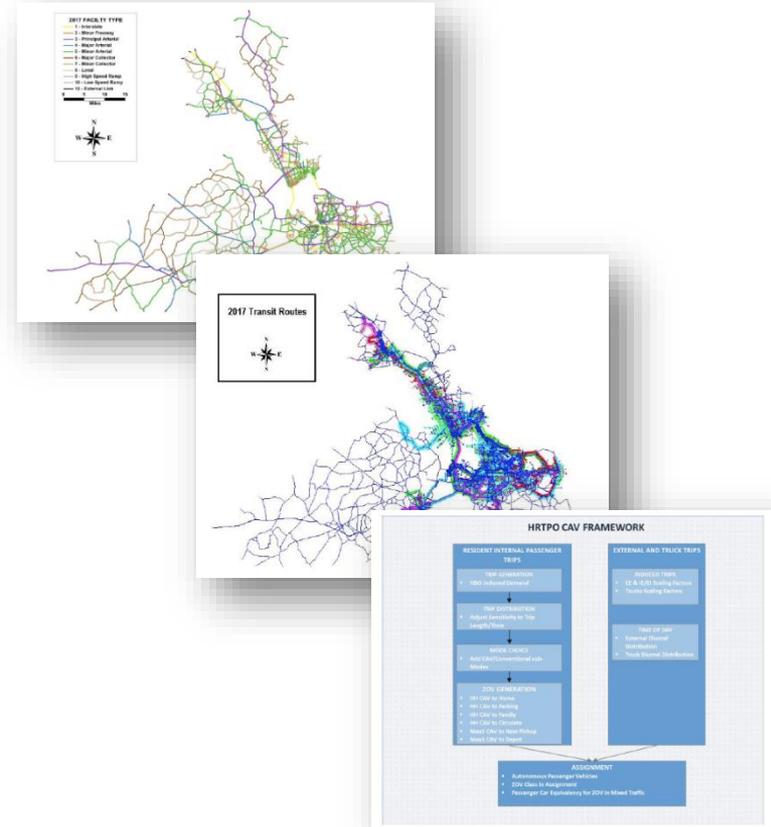


REGIONAL TRAVEL DEMAND MODEL UPDATE

Per Federal Regulations, base year data must be updated every 10 years

Improvements:

- Model Area Expanded to Include Franklin and Southampton County
- Updated TAZs, highway, transit networks
- Improved Toll Choice Model
- New/Planned Modes (Connected/Autonomous Vehicles, Ride Sharing)
- Environmental Justice analysis
- Improved Post-Processing Efficiencies



2045 LRTP: COMPENDIUM OF REPORTS TO DATE



Hampton Roads 2045
Socioeconomic Forecast
and Transportation Analysis Zone Allocation



February 2019

Hampton Roads 2045
Long-Range Transportation Plan:
Title VI/Environmental Justice
Candidate Project Evaluation



T20-08



Hampton Roads 2045
Long-Range Transportation Plan:
Regional Needs

T20-07

July 2020



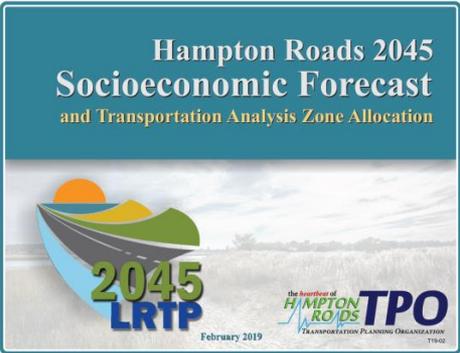
DRAFT

Hampton Roads 2045
Long-Range Transportation Plan:
Transportation Challenges
and Strategies

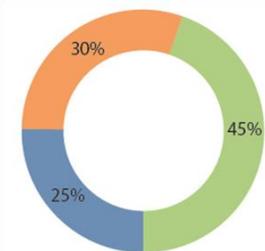
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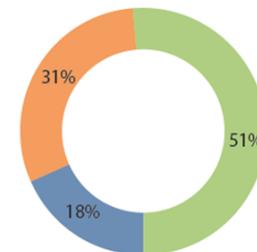
2045 SOCIOECONOMIC FORECAST



Portion of 2045 Forecasted Population



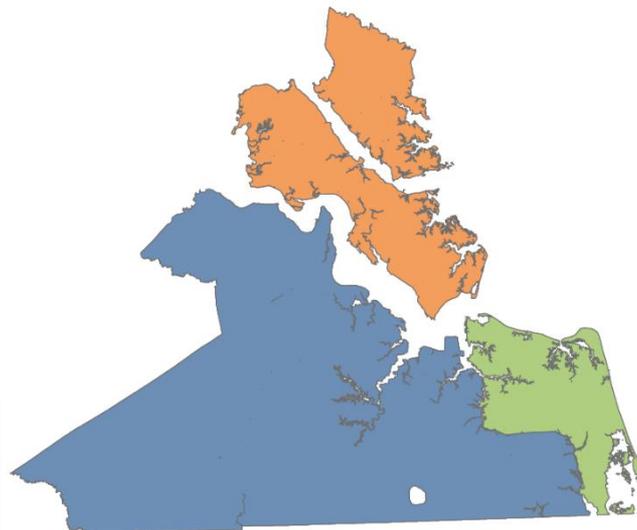
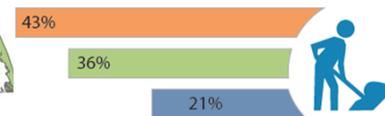
Portion of 2045 Forecasted Employment

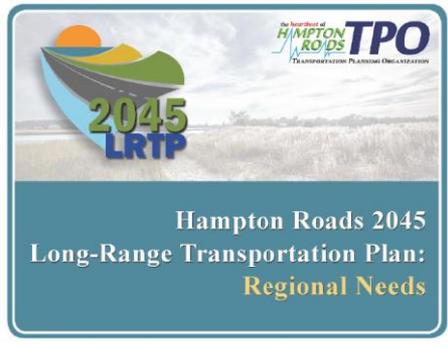


Portion of 2045 Forecasted Population Growth 2015 to 2045



Portion of 2045 Forecasted Employment Growth 2015 to 2045





THE 2045 LONG-RANGE TRANSPORTATION PLAN WILL USE INNOVATIVE PLANNING TECHNIQUES TO ADVANCE AN ADAPTIVE TRANSPORTATION SYSTEM THAT SEAMLESSLY INTEGRATES TRANSPORTATION MODES FOR ALL USERS WHILE IMPROVING QUALITY OF LIFE AND PRESERVING THE UNIQUE CHARACTER OF HAMPTON ROADS.

Vision and Goals

Identifying Regional Needs

Candidate Project Analyses

Appendices

2045 LRTP CANDIDATE PROJECTS



Project Collection Process

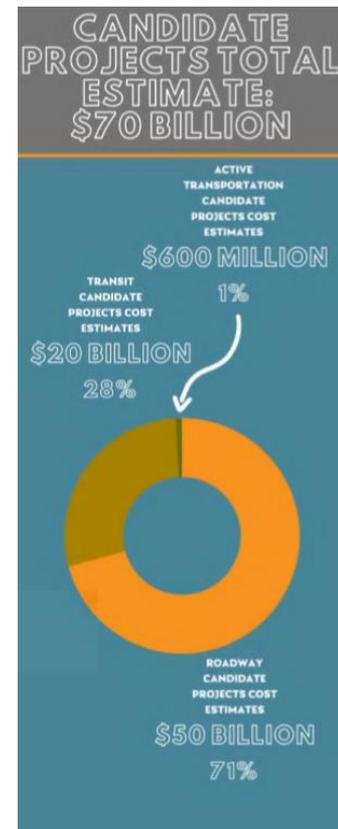
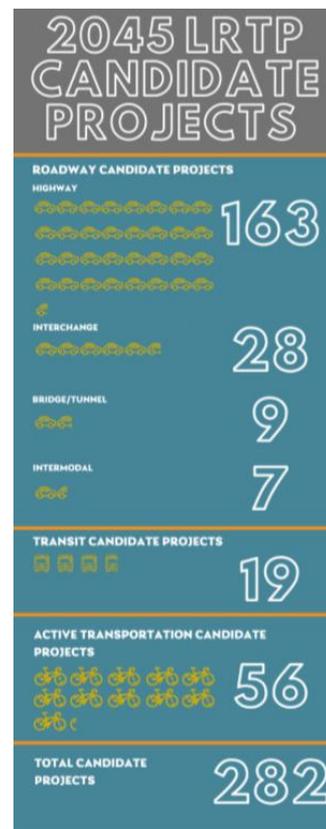
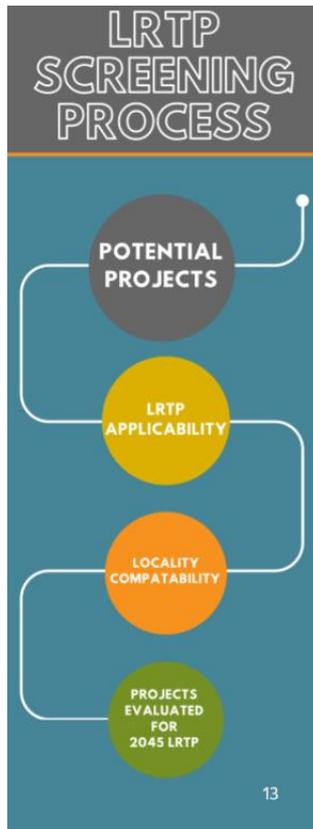
Engagement of HRTPO Committees

- LRTP Subcommittee
- Transportation Technical Advisory Committee (TTAC)
- **Community Advisory Committee (CAC)**
- Freight Transportation Advisory Committee (FTAC)

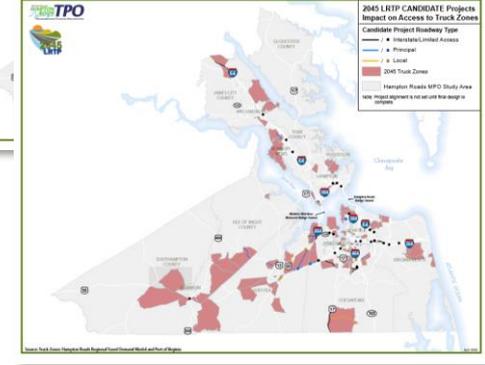
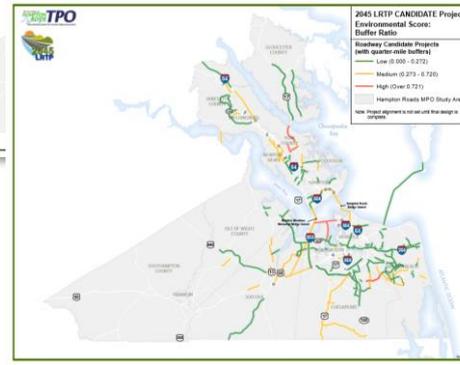
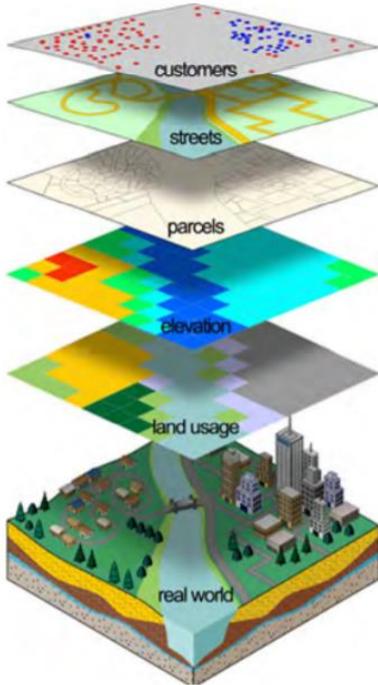
2040 LRTP and Vision Plan

Other HRTPO Planning Efforts (Freight, Congestion Management Process, Safety, etc.)

Public Input (web survey)



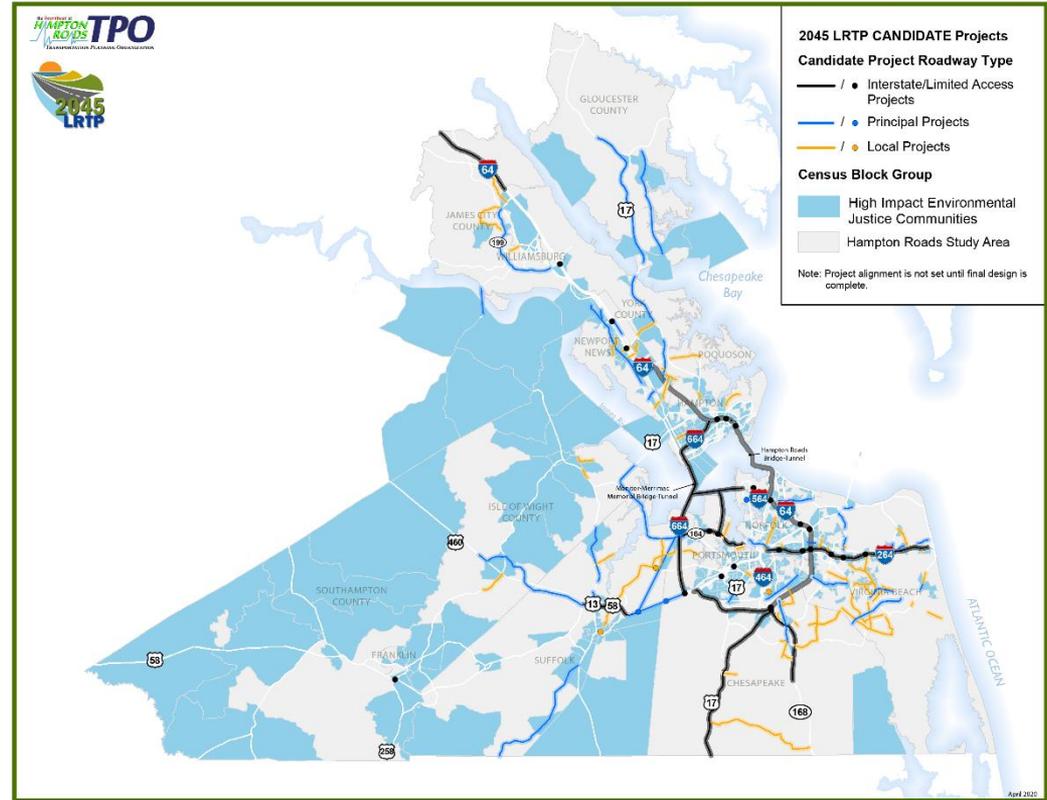
CANDIDATE PROJECT SPATIAL OVERLAY ANALYSIS

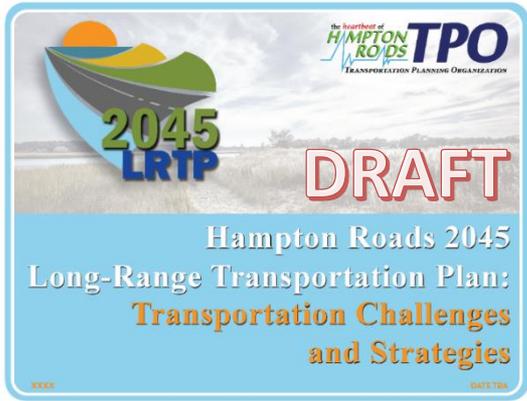




- 1 IDENTIFICATION OF TITLE VI/ENVIRONMENTAL JUSTICE INDICATORS
- 2 IDENTIFICATION OF GEOGRAPHICAL AREAS OF ANALYSIS
- 3 IDENTIFICATION OF ENVIRONMENTAL JUSTICE COMMUNITIES
- 4 ASSIGNMENT OF CANDIDATE PROJECT EXTENT
- 5 IDENTIFICATION OF POTENTIALLY IMPACTED ENVIRONMENTAL JUSTICE COMMUNITIES
- 6 DETERMINATION OF ENVIRONMENTAL JUSTICE IMPACT SCORE
- 7 DEVELOPMENT AND IMPLEMENTATION OF ENVIRONMENTAL JUSTICE PUBLIC PARTICIPATION STRATEGIES FOR THE 2045 L RTP CANDIDATE PROJECTS

HIGH IMPACT ENVIRONMENTAL JUSTICE COMMUNITIES are defined as Census Block Groups containing **FIVE OR MORE** Environmental Justice Communities (Title VI/Environmental Justice Indicators above the regional average) within the same Block Group





- Summarizes **challenges** related to the transportation system, and **strategies** that are planned or in place to help address these challenges

MOBILITY AND ACCESSIBILITY	
<ul style="list-style-type: none"> Special Needs Population Congestion Travel Time Reliability 	<ul style="list-style-type: none"> Commuting Public Transportation Active Transportation Rail Transportation Technology and the Future
CORNERSTONES OF THE REGIONAL ECONOMY	
<ul style="list-style-type: none"> Military Freight 	<ul style="list-style-type: none"> Tourism
SYSTEM PRESERVATION, SAFETY, AND SECURITY	
<ul style="list-style-type: none"> Infrastructure Preservation Safety 	<ul style="list-style-type: none"> Infrastructure Security Security of Various Transportation Modes
THE ENVIRONMENT	
<ul style="list-style-type: none"> Sustainability and Resiliency (Climate Change and Sea Level Rise) Water Quality 	<ul style="list-style-type: none"> Air Quality Environmentally Sensitive Lands Land Use and Transportation
TRANSPORTATION FINANCE	
<ul style="list-style-type: none"> National State 	<ul style="list-style-type: none"> Construction Cost Increases
PERFORMANCE MANAGEMENT	
<ul style="list-style-type: none"> System Monitoring Measuring Performance (Targets) 	<ul style="list-style-type: none"> Incorporating Targets into the Planning Process

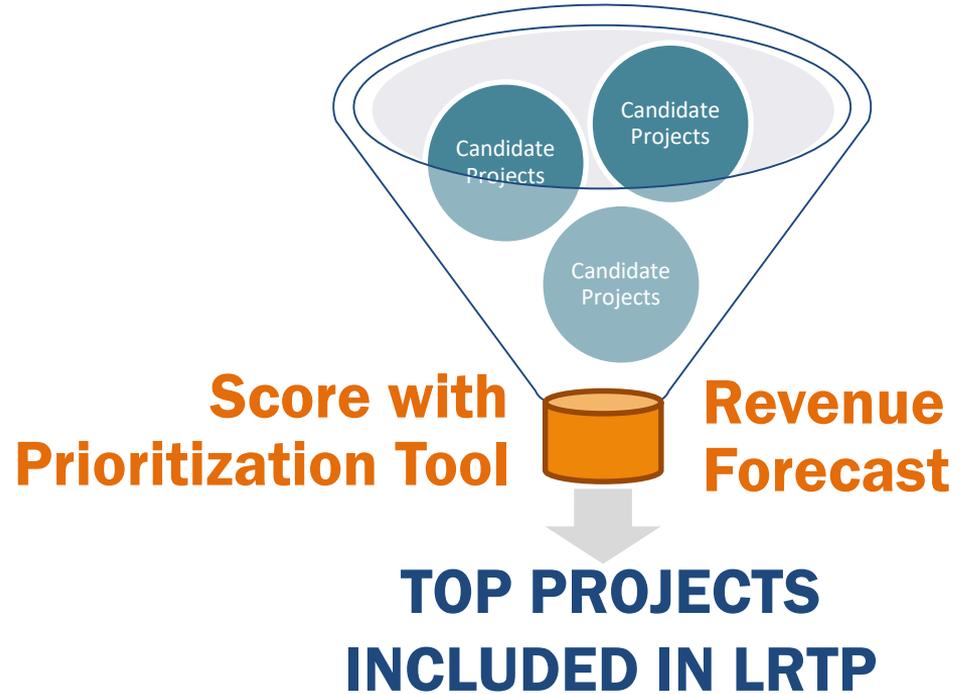
HRTPO Project Prioritization Tool

Project Utility:
Ability to solve a problem

Economic Vitality:
Potential for economic gain

Project Viability:
Project readiness

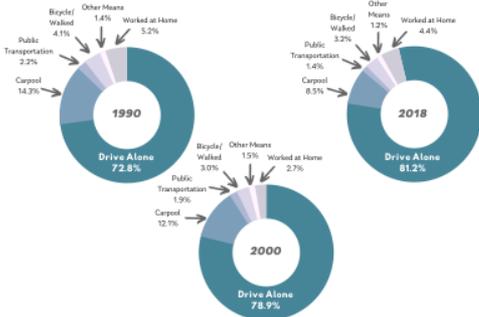
REGIONALLY-SIGNIFICANT CANDIDATE PROJECTS



TRANSPORTATION CHALLENGES AND STRATEGIES REPORT



COMMUTING METHODS IN HAMPTON ROADS



Data source: US Census Bureau.

10.1% OF VIRGINIA GROSS STATE PRODUCT

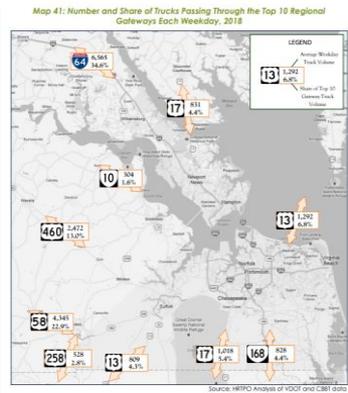
\$2.7 BILLION IN STATE/LOCAL TAXES

\$27.4 BILLION IN WAGES

530,800 JOBS

79 MILLION TONS OF CARGO MOVED

88.4 BILLION IN SPENDING



SUMMER AND NON-SUMMER VOLUMES ON MAJOR TOURIST ROUTES

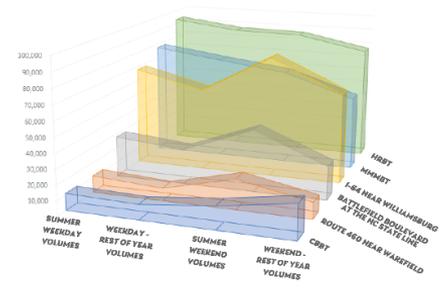


Table 4: Annual Targets (2020) - Roadway Safety

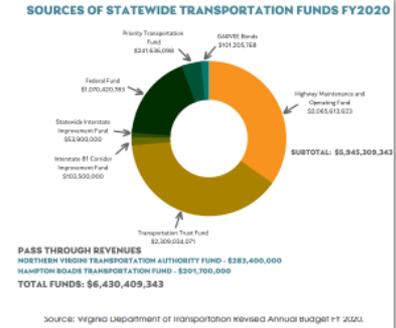
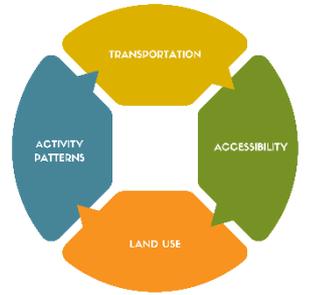
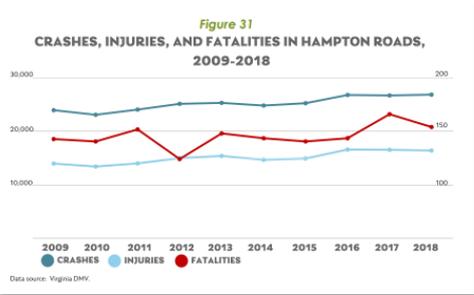
AREA	MEASURES	TARGET
ROADWAY SAFETY	Fatalities	-24
	Fatality Rate	-24
	Serious Injuries	-1,448
	Serious Injury Rate	-9.95
	Infrastructure Fatalities & Serious Injuries	-100

Table 5: Annual Targets (2020) - Transit Asset Management

ASSET TYPE	PERFORMANCE MEASURE	TARGET
ROLLING STOCK	% of On-Track Vehicles Within Scheduled Class	-15%
	% of On-Track Vehicles with Excessive Door Open Life	-35%
	% of On-Track Vehicles with Excessive Brake Life	-20%
EQUIPMENT/SERVICE VEHICLES	Non-Revenue Vehicles	-65%
	Truck/Motor Vehicle	-15%
	Light Rail	-15%
INFRASTRUCTURE	Performance & Reliability	-15%
	Performance & Reliability	-15%
FACILITIES	Performance & Reliability	-15%
	Performance & Reliability	-15%

Table 6: 4-Year Targets (2021)

AREA	MEASURES	TARGET
PAYMENT CONDITION	% Interstate System pavement in good condition	+45%
	% Interstate State pavement in poor condition	-15%
	% Non-Interstate System NHS pavement in good condition	-15%
BRIDGE CONDITION	% Non-Interstate System NHS pavement in poor condition	-15%
	% NHS bridge deck in good condition	+25%
	% NHS bridge deck in poor condition	-25%
ROADWAY PERFORMANCE	Interstate Travel Time Reliability	+1%
	Non-Interstate NHS Travel Time Reliability	+3%
TRUCK	Truck Travel Time Reliability	0%
	N/A for Allocated Areas	-10%



source: Virginia Department of Transportation Revised Annual Budget FY 2020

Enhancements vetted through HRTPO committees/ subcommittees/relevant stakeholder groups/public

Balance Three Components (Project Utility, Economic Vitality, Project Viability)

- More robust Economic Vitality and Project Viability measures

Add Economic Vitality to Active Transportation and "Other" (smaller scope) projects

Improved alignment with Federal Performance Measures

Improved alignment with SMART SCALE Measures (congestion, safety, environmental considerations)

Incorporated Resiliency

Enhanced Accessibility and Social Equity considerations throughout categories

Improved Intermodal/Freight, Transit, and Active Transportation Measures

Improved "Other" category to use in RSTP scoring process (projects not evaluated as part of the L RTP)

Modified calculation of Cost Effectiveness

- CAC members reviewed proposed enhancements and provided feedback on weighting measures at its March 14, 2019 meeting
- HRTPO Board approved Prioritization Tool enhancements at its July 16, 2020 meeting

2045 L RTP Regional Priority Projects Selection Guidelines

Include Committed Regional Priority Projects from 2040 L RTP

Consistent with HB2313 Legislation (provide the most congestion relief for the most citizens)

HRTPO Express Lanes Resolution 2020-04 (based on project readiness)

Meet Regional Project Cost Threshold of \$100 Million

Maintenance Needs

- Set aside funding to cover projected maintenance needs for 2020-2045 L RTP Planning Horizon
- Includes State of Good Repair

Committed Projects

- Projects under construction or soon to be constructed and fully-funded in the Six Year Improvement Program (balance to complete)

“Grouped” Projects

- Set-aside funding to cover “Grouped” Projects (projects not individually listed since not considered “regionally significant”)

Regional Funds

- Hampton Roads Transportation Fund (HRTF)
- Funding Plan for Regional Priority Projects (RPPs) to be developed by HRTAC, and will be included in the fiscally constrained 2045 L RTP

Distribution of Funding

- Reserve SMART SCALE High-Priority Projects Funding Program for RPPs
- Determine Highway/Transit Funding Split for CMAQ and RSTP Funds
- RSTP Transit Split Funding “balance” will be used to constrain additional highway projects
- TA Set-Aside reserved for Active Transportation candidate projects

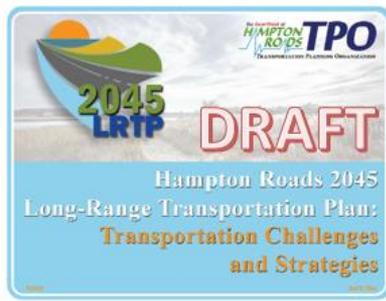
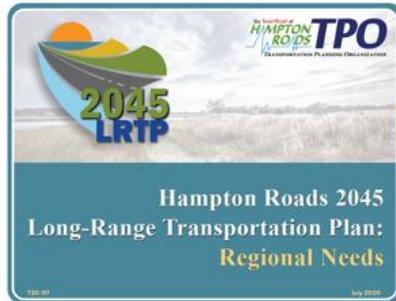
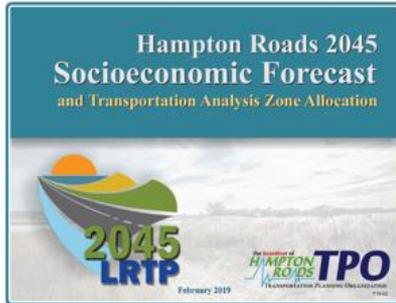
Project Prioritization/Scenario Planning

- Projects within funding categories selected based on overall Project Prioritization score

- Current step: Project Evaluation and Scenario Planning
- CAC input
 - Review Draft Project Prioritization Scores
 - Review Fiscally-Constrained Project List



Current 2045 LRTP Resources



Upcoming LRTP Reports

- Candidate Project Evaluation and Prioritization
 - By Scenario
 - Updated Methodology Documentation
- Funding Plan
- Project Information Guide
- Plan Performance
- Documentation of Public Involvement
- Rural LRTP