

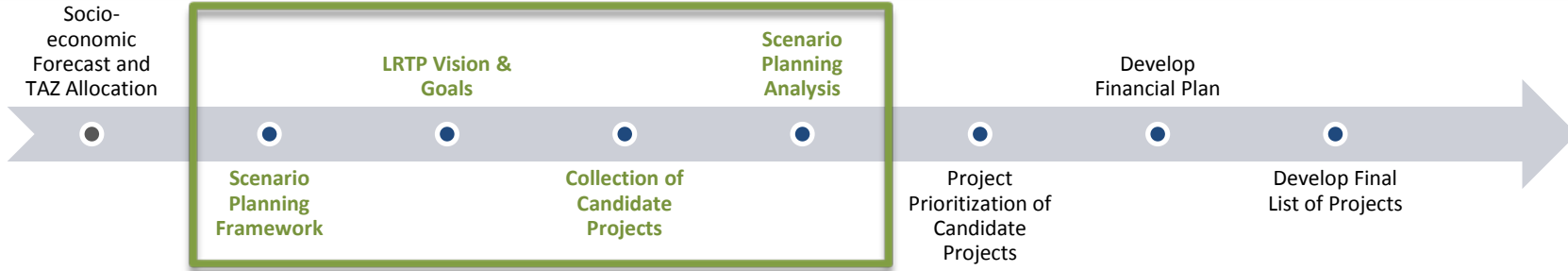
2045 LONG-RANGE TRANSPORTATION PLAN: REGIONAL SCENARIO PLANNING FRAMEWORK



Hampton Roads Transportation Planning Organization
July 18, 2019

Dale M. Stith, AICP, GISP
Principal Transportation Planner

2045 LRTP: CURRENT KEY MILESTONES

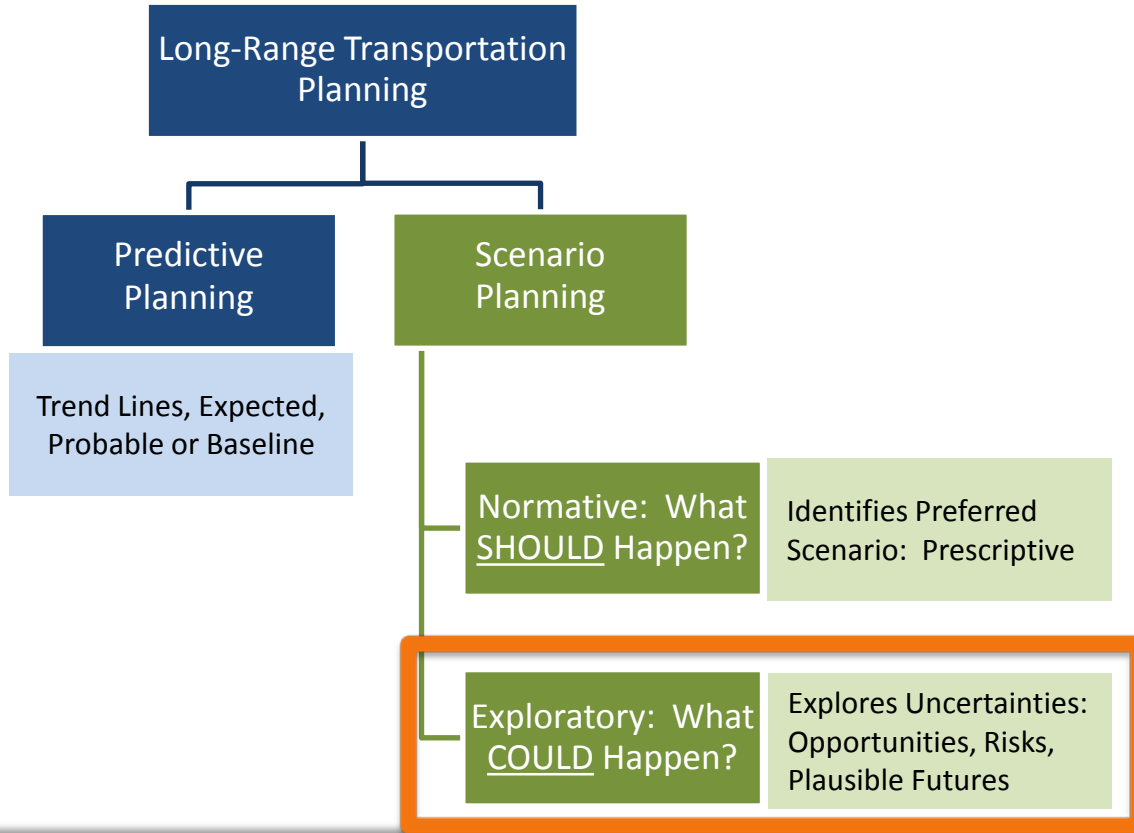


2045 LRTP Adoption Date: June 2021

Current Key Milestones:

- Updating Regional Travel Demand Model
- Developing Vision and Goals
- Collecting Candidate Projects
- Project Prioritization Tool Enhancements
- Scenario Planning Framework and Tools

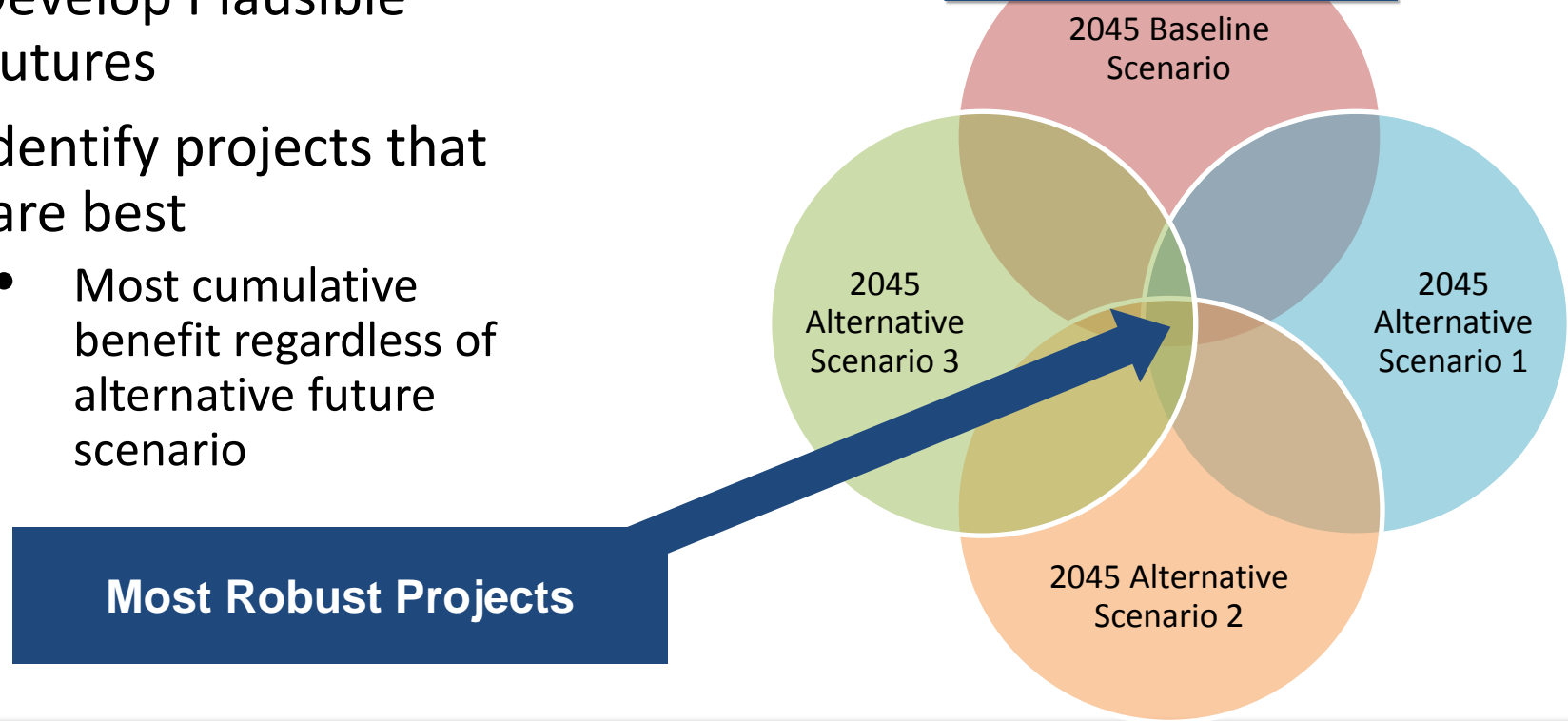
SCENARIO PLANNING



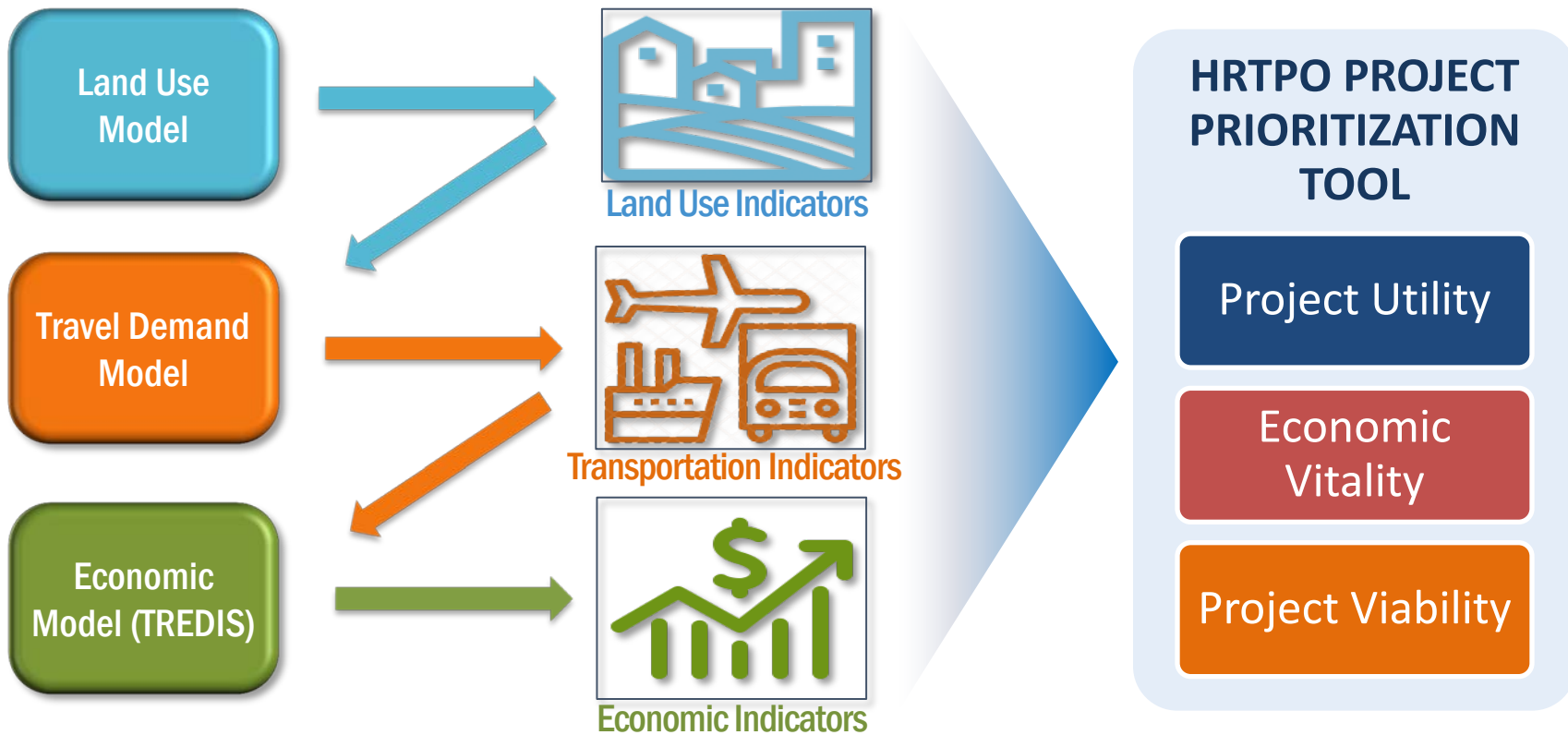
REGIONAL
CONNECTORS
STUDY

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

EVALUATE AND RANK PROJECTS ACROSS ALL SCENARIOS



MODELING THE SCENARIOS



Regional Place Types

- Virtual 2015
- Virtual 2045
- 2045 Greater Growth

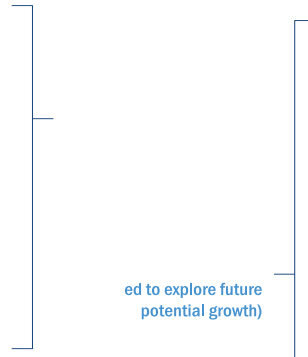
Scenario Narratives










- Drivers
- Themes

Greater Growth Control Total

- Employment Growth in addition to 2045 Baseline

- Unified set of data that describes regional development patterns
 - Existing and Future Land Use (consistent with Locality Comprehensive Plans)
 - Quantitative, summarizing land use, developed areas, and environmental data
- Control Totals for reconciling Place Types densities
 - Approved 2015 and 2045 Transportation Analysis Zone (TAZ) Data



Code and Name	Examples
RC Rural Cluster	
CN Compact Neighborhood	
BR Boulevard Residential	
BC Boulevard Commercial	
STC Suburban Town Center	
UTC Urban Town Center	
TDC Transit Oriented Center	
RIC Regional Industrial Center	
PI Port Industrial	

Greater Growth on the Water

- What happens if jobs focus on the waterfront, housing choices are varied, and transportation technology adoption is moderate?

Greater Growth in Urban Centers

- What happens if jobs and housing focus in urban areas, with greater multimodal availability and high adoption of connected vehicle technology?

Greater Suburban/ Greenfield Growth

- What happens if jobs and housing are developed in dispersed activity centers, with a higher level of truck transportation and high adoption of autonomous vehicle technology?

Greater Growth on the Water

Growth in water-oriented activity. Port of Virginia becomes even more competitive with freight more multimodal. More dispersed housing locations. Moderate assumptions for CAV adoption and network adaptation.

Greater Growth in Urban Centers

Significant economic diversification. Low space requirements per job. Large role for “digital port.” New professionals prefer to live/work in urban settings. High level of CV adoption and low auto ownership/high TNC mode.

Greater Suburban/ Greenfield Growth

Growth is suburban/ exurban, but growth includes walkable mixed use centers. Port of Virginia becomes even more competitive. “Digital port” brings additional jobs. Housing is more suburban. High level of AV adoption and network adaptation.

WHAT THESE WILL HELP US TEST

Test greater cross-harbor travel in particular.

Test more urban and multimodal travel patterns.

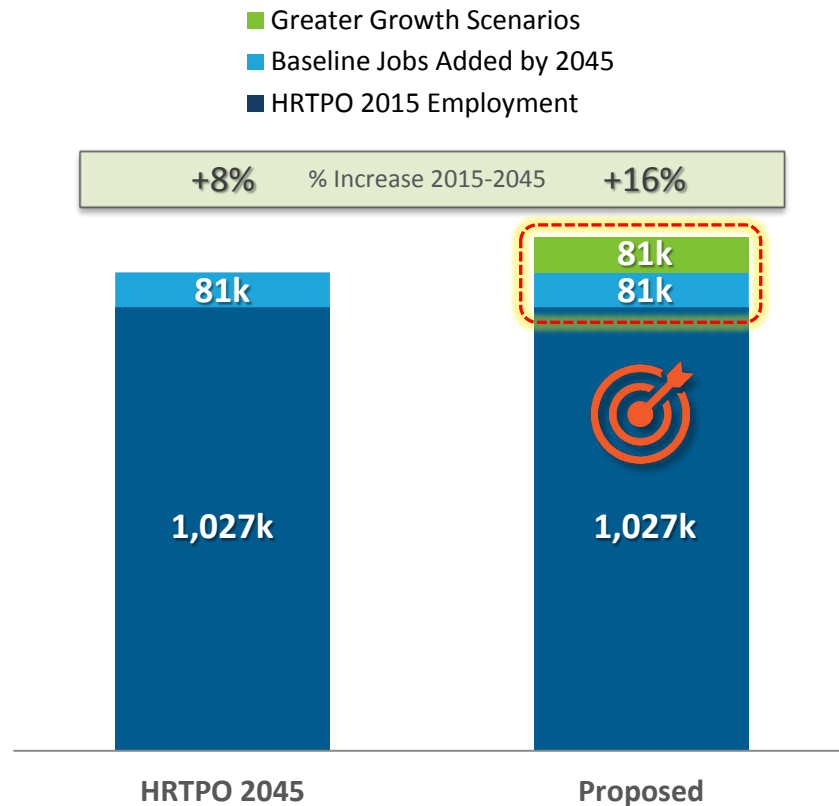
Test more overall regional travel.

NOTE: Sea Level Rise assumed as 3 ft. in all Scenarios

GREATER GROWTH CONTROL TOTALS



- Establish a Control Total for the “Greater Growth” Alternate Scenarios to stress test transportation alternatives
- The overall goal is to provide **differentiation** between the scenarios
 - Too little growth could dilute differences between scenarios
 - Too much growth with widespread, severe congestion could mask differences between scenarios (i.e. anything added to the network will also become congested)
- Believable narratives – plausible growth



- (2) Workshops
- (7) Webinars
- Emails, Conference Calls, Meetings between Locality Staff/HRTPO/HRPDC/RCS Consultants
- Reviewed and Approved by:
 - Long-Range Transportation Plan Subcommittee
 - Transportation Technical Advisory Committee
 - Regional Connector Study Working Group
 - Regional Connector Study Steering Committee
- Public Review and Comment Period
 - July 3-17, 2019



Approve the Regional Scenario Planning Framework

- Regional Place Types
- Scenario Narratives
- Greater Growth Control Total for Additional 2045 Growth
 - Recommend starting with 16% employment growth over 2015 (this will be an additional 8% over the 2045 Baseline 8% increase)
 - If 16% does not produce sufficient variation/distinction among the alternative scenarios, then rate can be modified up to 21%