

REGIONAL CONNECTORS STUDY

DRAFT Meeting Minutes

Date: May 2, 2019

Location: Webinar

Subject: Scenario Planning Updates #5:

Attendees:

- RCS Project Coordinator – Camelia Ravanbakht
- HRTPO/HRPDC – Dale Stith, Leonard Pineda, Keith Nichols
- City of Hampton – Angelo Rico
- City of Newport News – Bryan Stilley
- City of Norfolk – Brian Fowler, Amy Inman
- City of Portsmouth – Carl Jackson
- City of Virginia Beach – Mark Shea, Tara Reel
- Hampton Roads Transit – Sam Sink
- James City County – Thomas Leininger, Tammy Rosario, Tori Haynes
- Port of Virginia – Barbara Nelson
- York County – Tim Cross
- DRPT – Tiffany Dubinsky
- Consultant Team – Craig Eddy, Lorna Parkins, Nick Britton, Bill Thomas, Vlad Gavrilovic, Jason Espie, Will Cockrell, Naomi Stein, Scott Middleton

Lorna Parkins, Michael Baker, gave a brief recap of the scenario testing process. She then reviewed goals, objectives, and performance measures, initially detailing the roles and purpose of performance measures.

Brian Fowler, Norfolk: We need to be careful about “performance measure” because we are estimating things and not measuring things. Same issue with “accurately”. To the extent practical, we need to find ways to establish an outcome for those issues that only need solutions. We need to try to characterize an outcome that stands on its own; e.g., “an uncongested network.”

Lorna: A measure by its nature is relative. We weren't necessarily aiming to establish targets. The point of the scenario exercise is to compare how things performance under different assumptions.

Naomi Stein, EDR, discussed the Economic Vitality goals and objectives and how the scenario measures/project measures capture these objectives.

Brian: We should beef up/clarify the freight movement aspect; include the term "intermodal". We should also incorporate the National Highway System into the measure somehow – it is a more complete way of describing the intermodal network (intermodal accessibility is the key issue).

Lorna discussed the Sustainability, Equity, Community, and Environmental goals and objectives and how the scenario measures/project measures capture these objectives. Vlad clarified that some of these measures are going to be straight-line distances in land use model, but in Travel Demand Forecasting Model (TDFM) it is network distance.

Amy Inman, Norfolk: This endeavor is being paid for by HRTAC for potentially HRTAC-funded projects. How do any of these measures relate back to HRTAC?

Camelia Ravanbakht: Yes, study has been paid for HRTAC. That money is just for the study, but there has been no objection from HRTAC about the objectives and performance measures. Kevin Page has been fully engaged, but I will personally discuss this with Kevin Page.

Brian: Take out "future growth" because we are measuring the impact of all growth. Highlight the historical and cultural resources in this goal.

Tammy Rosario, JCC: It's important that tourist attractions also include the cultural sites in Williamsburg, not just oceanfront and Busch Gardens and Water Country.

Lorna discussed the Connectivity and Accessibility goals and objectives and how the scenario measures/project measures capture these objectives.

Brian: Beef up the notion that we're improving the accessibility between Peninsula and Southside and not just connectivity. Move reliability up to the objective level.

Bill Thomas, M. Baker: We can show this graphically, too, which will help clarify the measures for objective 1.

Lorna discussed the Safety, Resiliency, and Innovation goals and objectives and how the scenario measures/project measures capture these objectives.

Brian: Any need to discuss evacuation?

Lorna: We talked about bottlenecks as a proxy for that but did not include it.

Bill: Since we can only look at traffic under average weekday conditions, there's no real way to get results that give you insight through the TDFM.

Brian: We need to figure out if this is important to us and determine a way to measure it if it is, even if it is outside the model. These are parts of resiliency.

Camelia: Talk to Rob Case because the TPO did a study regarding evacuation modeling a few years ago.

Other discussion items?

Brian: We need to discuss military mobilization. Also, all of these objectives relate back to many of the other issues that they don't specifically fall under (economic vitality, safety, etc.) This gets communicated as a "pyramid" so people don't see the full relationship between all the goals, objectives, and measures.

Naomi recapped the scenario narratives and began defining the port narratives in greater detail.

Kevin Page: Private terminals with CSX and Norfolk-Southern; we need to find a way to tell the full story about the truck traffic from these private terminal. As growth increases at port, how much of this growth ends up on the roads as well.

Brian: Surface streets in Norfolk will be heavily impacted by rail activity.

Brian: Differentiate between truck burden and rail burden.

Other discussion items?

Brian: We appear to be on the right track.

Lorna discussed the next steps (model development, scenario develop, and May 21 workshop). Camelia discussed the schedule.

The webinar slides are attached and the webinar recording can be accessed [here](#).



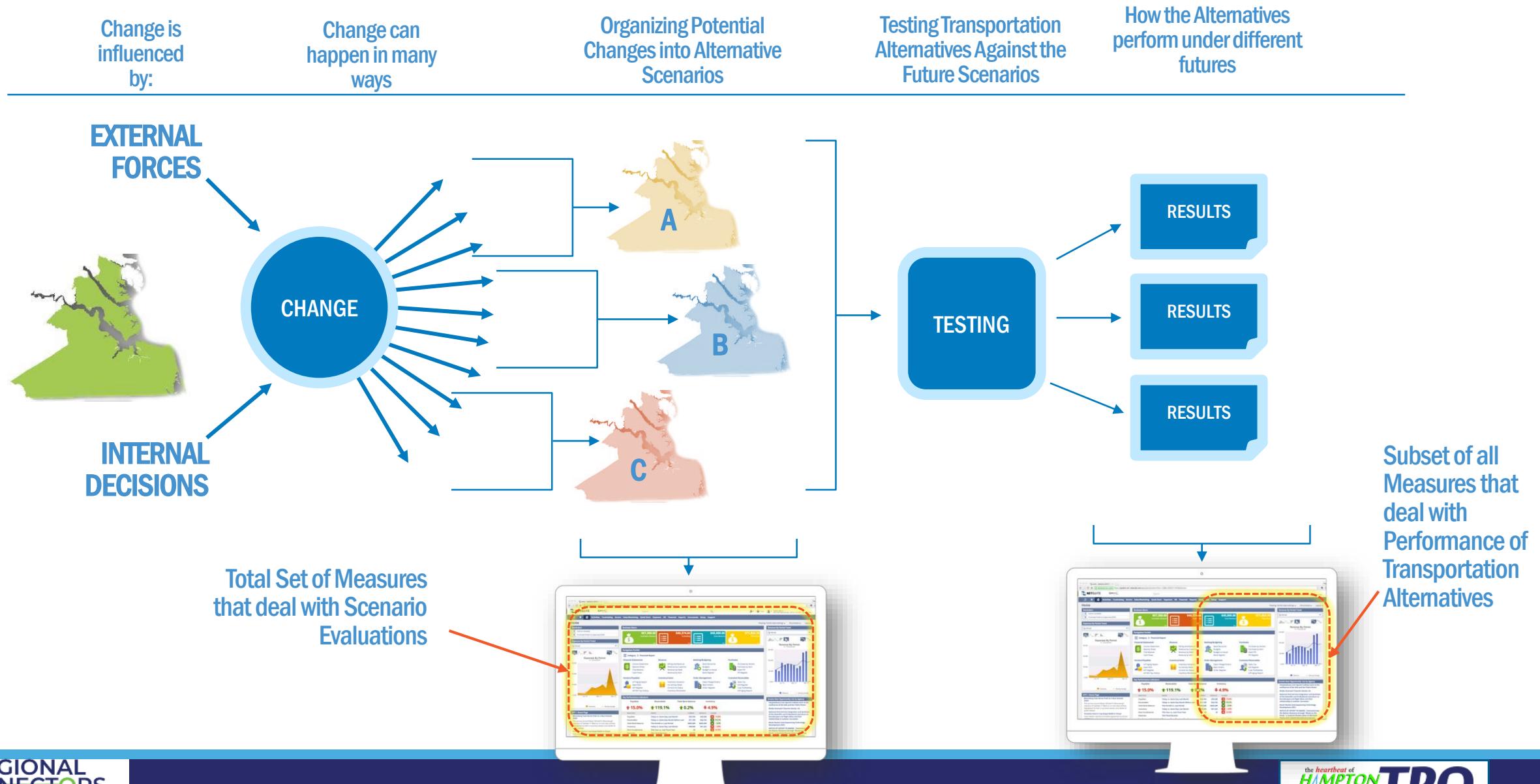
REGIONAL CONNECTORS STUDY

SCENARIO PLANNING WEBINAR #5

May 2, 2019

Michael Baker
INTERNATIONAL

Scenario Testing in this Study:





REGIONAL CONNECTORS STUDY

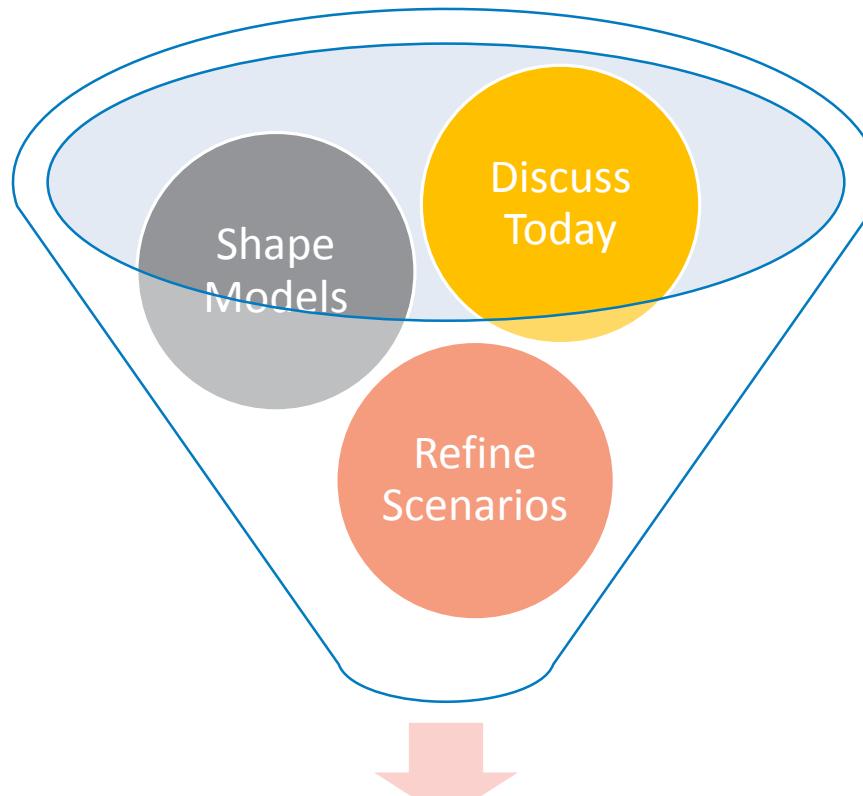
GOALS, OBJECTIVES & PERFORMANCE MEASURES

Michael Baker
INTERNATIONAL

What makes a good performance measure?

- Specific – it is clear what you are measuring
- It accurately reflects the goal/objective that you are trying to accomplish
- The units make sense (dollars, hours, jobs, etc.)
- Only add complexity if it adds meaning (ex: VMT per capita is meaningful)
- Spatial – some measures can be both summarized regionally and shown spatially, and both have value
 - Ex: congestion can be summarized (regional hours of delay) but also mapped on the network
- Comparative – it focuses on a meaningful comparison
 - Ex: compared to 2045 baseline, compared to the same scenario with other RCS alternatives, etc.

This is a DRAFT



Finalize Measures

Economic Vitality

DRAFT FOR DISCUSSION

Objective	Scenario Measure	Candidate Project Measure
Support regional growth and productivity	Lost productivity* from delay	Change in lost productivity* from delay
	Labor market accessibility	Economic impact of change in labor market accessibility
Support efficient freight movement	Performance on the freight network – total delay + spatial results	Change in hours of delay on freight network
		Economic impact of change in delay and reliability on the freight network
	Percent of freight traffic on secondary streets – total + spatial	Change in percent of freight traffic on secondary streets – total + spatial
Support accessibility for tourism	Accessibility to major tourist attractions**	Change in accessibility to major tourist attractions**

*Productivity measured as **value added** OR could measure 'inefficiency'

** Can only be forecasted for average weekday conditions

Sustainability – Equity, Community & Environmental

DRAFT FOR DISCUSSION

Objective	Scenario Measure	Candidate Project Measure
Improve the sustainability of communities through increased housing choice and reduced auto-dependency	Percent of population in multi-family housing	
	Mode share index*	Changes in mode share index*
	Transit ridership	Change in transit ridership
	Housing near Destination Centers	Average trip lengths by purpose
Ensure that mobility benefits positively affect low income residents	Ratio of user cost for low income travelers to all user cost	Ratio of user cost savings for low income travelers to all user cost savings
	Low income household access to employment	Low income household access to employment
Minimize the environmental impact of future growth & transportation	Percent of growth on undeveloped land	
	Cost of emissions	Change in cost of emissions
	Percent of impervious surface	

Connectivity & Accessibility

DRAFT FOR DISCUSSION

Objective	Scenario Measure	Candidate Project Measure
Improve connectivity between the Peninsula and Southside.	Delay on cross-harbor trips	Change in delay on cross-harbor trips (time and dollar value)
	Circuitry of cross-harbor trips	Change in circuitry of cross-harbor trips
	Reliability for cross-harbor trips	Change in reliability for cross-harbor trips (time and dollar value)
Improve connectivity and access for all	Multimodal accessibility to jobs	Change in multimodal accessibility to jobs
	Accessibility index by mode	Change in accessibility Index by mode
	Performance of the transit-serving roadway network (i.e., avg speed)	Performance of the transit-serving roadway network (i.e., avg speed)
Reduce delay and improve travel efficiency	Regional delay (total + spatial)	Change in delay (total + spatial)
	System reliability	Reliability cost savings
	User cost	Change in user costs

Safety, Resiliency & Innovation

DRAFT FOR DISCUSSION

Objective	Scenario Measure	Candidate Project Measure
Improve safety through a more adaptive transportation network	Cost of forecasted crashes	Cost of forecasted crash
	Percent of trips by automated vehicles	??
	Percent of travel using facilities with adaptive technology (V2I, ITS...)	Change in percent of travel using facilities with adaptive technology
Make investments that improve flood resiliency	Acres of development near flood-prone areas	
	Transportation network impact from flood-prone conditions (delay, trip length and/or circuity)	Change in the same measure
Consider the impacts of technology on system demand and performance*	Reliability enhancement from technology	N/A?
	Induced trip demand from technology	N/A?

*Each scenario will include assumptions about adoption of technology overall, by placetype, and by facility type.

This objective is intended to provide for comparison of the results of those assumptions across scenarios.

Summary of Goals-Objectives-Measures

DRAFT FOR DISCUSSION

Goal	Objective	Summary of Measures
Economic Vitality	Support regional growth and productivity	Effect of delay on productivity; value of labor market access; value of travel time savings
	Support efficient freight movement	
	Support accessibility for tourism	
Sustainability – Equity, Community and Environmental	Improve the sustainability of communities through increased housing choice and reduced auto-dependency	
	Ensure that mobility benefits positively affect low income residents	
	Minimize the environmental impact of future growth & transportation	
Connectivity and Accessibility	Improve connectivity between the Peninsula and Southside	
	Support transportation investments that improve connectivity and access for all	
	Reduce delay and improve travel efficiency	
Safety, Resiliency & Innovation	Improve safety through a more adaptive transportation network	
	Make investments that improve flood resiliency	
	Consider the impacts of technology on system demand and performance	

Discussion

- Is anything unclear?
- Is anything important missing?
- Do any measures miss their mark?



REGIONAL CONNECTORS STUDY

SCENARIO PORT NARRATIVES – INITIAL DEFINITION

Michael Baker
INTERNATIONAL

Recap: Scenario Narratives

Greater Growth on the Water

Growth in water-oriented activity.
Port of Virginia becomes even more competitive.

Greater Growth in Urban Centers

Significant economic diversification. Space requirements per FTE are low and new professionals prefer to live/work in urban settings. Large role for “digital port.”

Greater Suburban/Greenfield Growth

Growth is suburban/exurban.
Port of Virginia becomes even more competitive. “Digital port” brings additional jobs.

→ Today: Begin defining port narratives in greater detail

Recap: Scenario Industry Clusters

Greater Growth on the Water

Federal/Military

Tourism/Arts & Culture

Port Growth

Marine/Transportation Technology

Water Technologies

Distribution

Greater Growth in Urban Centers

Shared Services

Software Development and IT

“Digital Port”-Oriented Development

Water Technologies

Greater Suburban/Greenfield Growth

Distribution

Marine/Transportation Technology

Port Growth

Advanced Manufacturing

“Digital Port”-Oriented Development

→ Consider alignment between port and industry activity

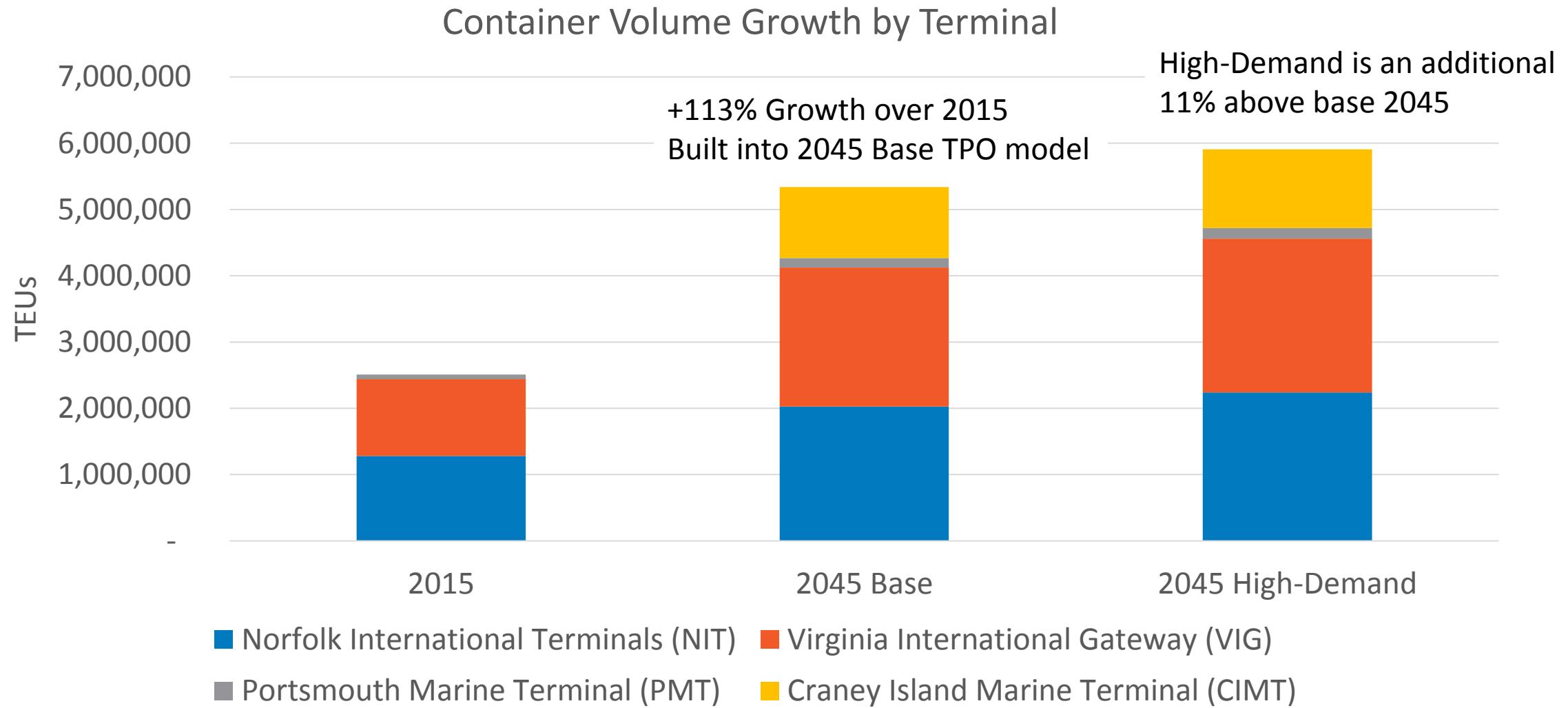
Goals for Port Scenario Drivers

- Address uncertainty in port growth trends – explore greater growth
- Understand the implications of landside mode share for port-generated goods movement
- Explore the spatial implications of different patterns of regional growth alongside port-related travel demand (as well as the relationship between the two)
- Acknowledge technological uncertainty
- “Stress test” the transportation system

Port Scenario “Building Blocks”

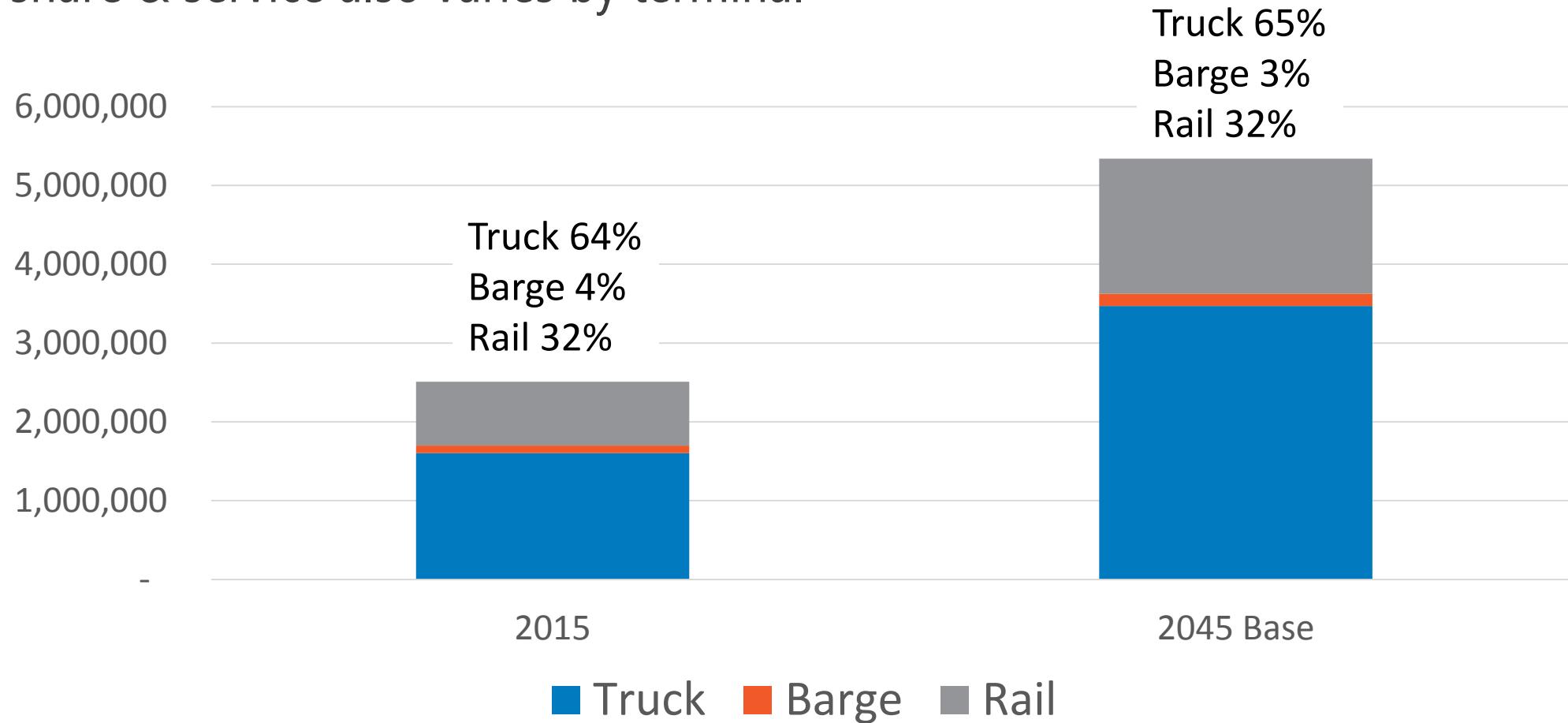
- Input from Port of Virginia (Barb Nelson)
- 2045 Base case and high-demand container volume growth forecasts from the Port of Virginia
- 2045 Base case container volume landside mode share by terminal
- POV long-term desired target of 50% rail mode share
- Spatial information on port facilities and port related warehouses

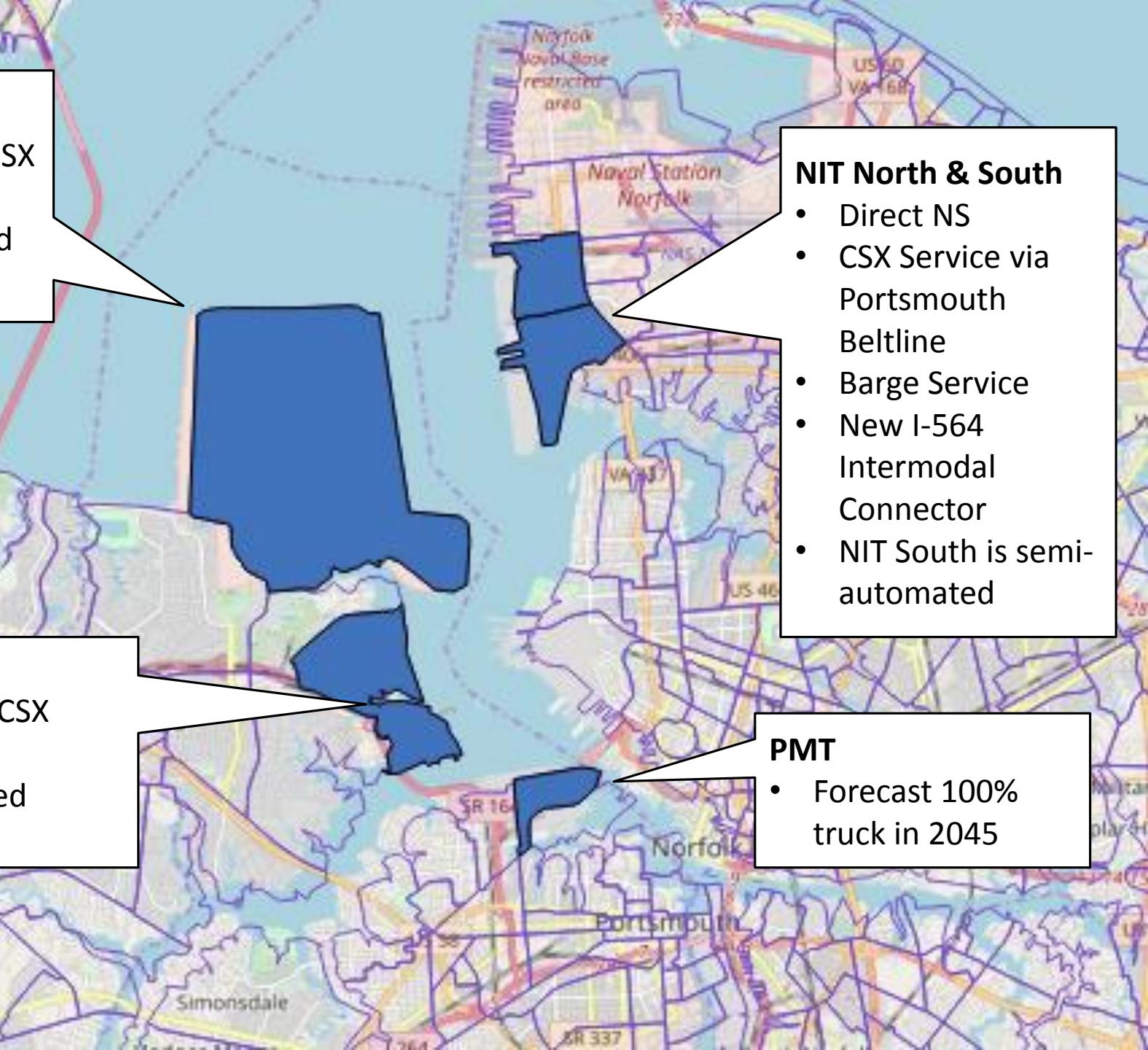
Port Forecasts – Containerized Volume



Port Forecasts – Containerized Mode

- Mode share & service also varies by terminal





Proposed Port Scenarios

- Explore range of volumes and modal shares
- Align with patterns of transportation demand and land (economic) development created by scenario economic narratives

#1 Greater Growth on the Water

- Port of Virginia becomes even more competitive for containerized goods: achieves high-demand growth forecasts
- Relatively greater share of demand growth is pass-through rather than serving regional businesses
- Automation of barge service to Richmond reduces costs and increases mode share
- Increased rail capacity allows PoV to reach 50% target at NIT, VIG, and CIMT and mitigate exposure to road network congestion from water-adjacent development

Desired insight: High growth but with limited burden on road network

#2 Greater Growth in Urban Centers

- Port of Virginia growth according to 2045 Baseline forecasts
- Urban growth in vicinity of port increases pressure on road network serving the port as well community pressure to manage port growth
- In response, increased investment in rail and resulting increase in rail mode share above baseline – but less than in scenario #1

Desired insight: Explore baseline 2045 growth with overlap of urban and port growth pressures

#3 Greater Suburban/Greenfield Growth

- Port of Virginia becomes even more competitive for containerized goods: achieves high-demand growth forecasts
- Relatively greater share of demand growth is regional-serving rather than pass-through, increasing truck exchange between port, regional warehousing/distribution sites, and industrial growth areas
- Advanced manufacturing incorporates 3D printing, increasing demand for localized delivery
- Automated or semi-automated platooning for trucks increases competition with the railroads, leading to greater truck share particularly at NIT north gate with new I-564 connector

Desired insight: Explore truck-intensive growth effects on network

Port Drivers by Scenario

Employment by Industry	Scenario 1	Scenario 2	Scenario 3
Containerized volume (TEUs)	↑	-	↑
Rail mode share	↑↑	↑	↓
Barge mode share	↑	-	-
Truck mode share	↓	↓	↑↑



REGIONAL CONNECTORS STUDY

NEXT STEPS AND SCHEDULE

Michael Baker
INTERNATIONAL

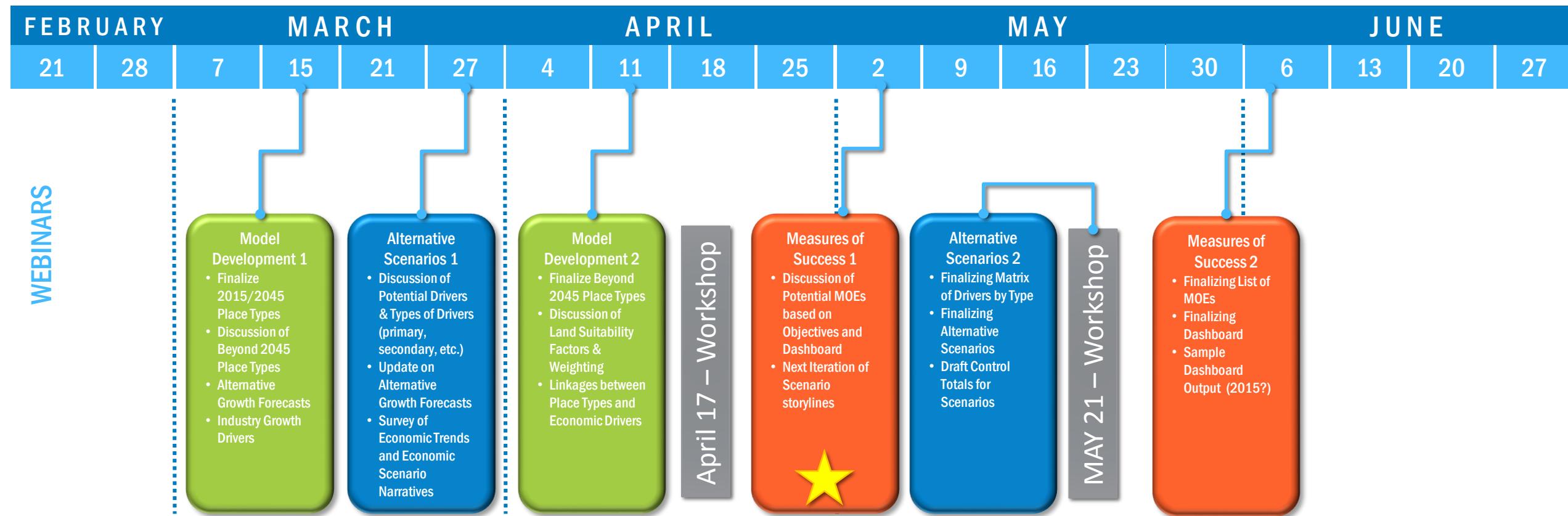
Current Schedule

TASK 4	CONDUCT SCENARIO PLANNING	Jan	Feb	Mar	Apr	May	Jun	Jul
4.1	Building the Base Data, Models, and Scenarios	▲	❖	❖	♦ ❖	▲	□	
4.2	Defining Alternative Future Scenarios			❖	● ❖	♦ ❖ ●	➡	
4.3	Defining Measures of Success	■				❖ ● ♦	□	
4.4	Evaluate 2015 Current Regional Conditions						❖ ♦ □	

Next Steps

- Model Development
 - Finalizing future Place Types and land use model development
 - Ongoing discussions of how inputs and outputs of all 3 models will work together
 - Travel Demand Model review
 - Exercise of mapping out specific inputs and outputs based on scenarios
 - Will lead to refinement of performance measures
- Scenario Development – Focus of May 21 Workshop
 - Determination of proposed amount of “greater growth”
 - Begin clarifying and aligning full set of drivers with the three narratives

REGIONAL CONNECTORS STUDY – INITIAL DRAFT SCHEDULE OF WORKING GROUP WEBINARS



WORKSHOP – Tuesday May 21

WEBINAR – June 6

DATES AND TOPICS ARE SUBJECT TO CHANGE