



COMMONWEALTH of VIRGINIA  
*Office of the*  
SECRETARY of TRANSPORTATION

## Key Takeaways: VTrans Risk & Opportunity Register

Staunton-Augusta-Waynesboro MPO Policy Board

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# VTRANS FOCUS AREAS

► VTrans is Virginia's Transportation Plan.

1  
CTB's Vision, Guiding  
Principles, Goals  
and Objectives

2  
VTrans Mid-term  
Needs: Identification  
and Prioritization

3  
VTrans Long-term  
Risk & Opportunity  
Register

4  
Strategic Actions



# LONG-TERM MEGA- & MACROTRENDS

MEGATREND

## CLIMATE

## TECHNOLOGICAL

## CONSUMPTION PATTERNS

## SOCIO-DEMOGRAPHIC

MACROTREND



Increase in Flooding Risk

- Sea-level Rise
- Storm Surge
- Inland/Riverine Flooding



Adoption of Highly Autonomous Vehicles



Adoption of Electric Vehicles



Growth in Shared Mobility



Growth in E-commerce



Greater Automation of Production and Services



Growth of Professional Service Industry



Increase in Workplace Flexibility



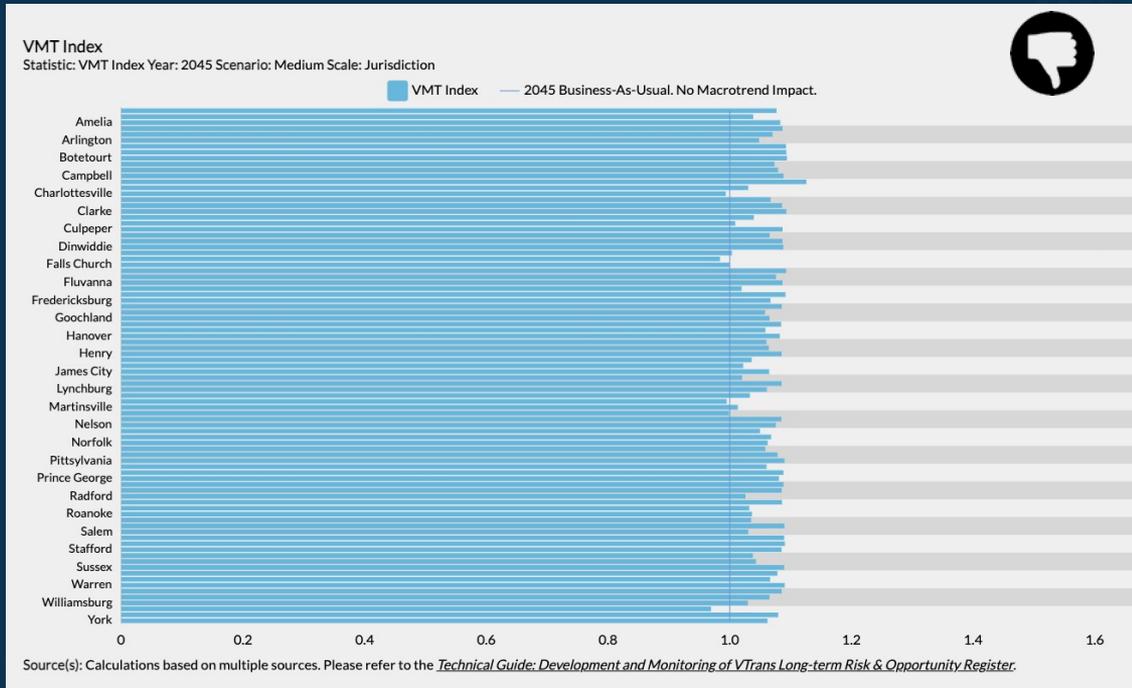
Growth of the 65+ Cohort



Population and Employment Shift

# IMPACTS CTB GOAL A: CONGESTION + TRAVEL TIME RELIABILITY

## VEHICLE MILES TRAVELED (VMT) INDEX: ESTIMATED CHANGE IN VMT DUE TO VTRANS MACROTRENDS COMPARED TO THE 2045 BUSINESS-AS-USUAL SCENARIO



**STATEWIDE IMPACT**

**+4%**  
LOW

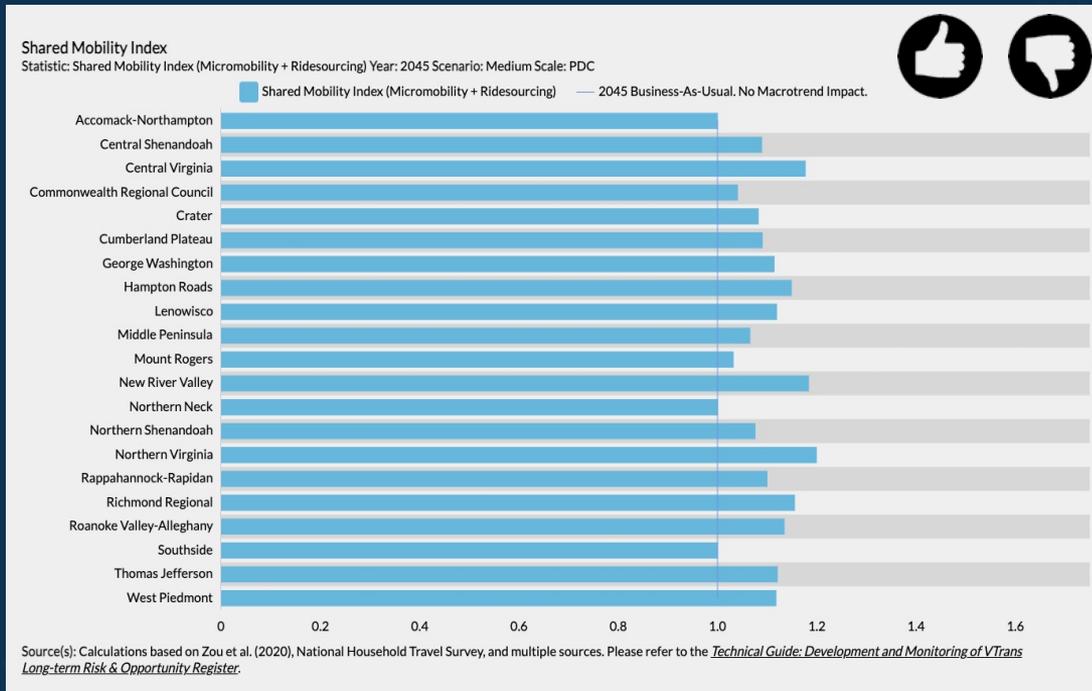
**+8%**  
MEDIUM

**+17%**  
HIGH



# IMPACTS CTB GOAL B: ACCESSIBILITY TO JOBS

## SHARED MOBILITY INDEX: ESTIMATED SWITCHABLE URBAN AUTO SOV VMT TO MICROMOBILITY + RIDESOURCING DUE TO VTRANS MACROTRENDS COMPARED TO THE 2045 BUSINESS-AS-USUAL SCENARIO



STATEWIDE IMPACT

**+9%**

LOW

**+18%**

MEDIUM

**+27%**

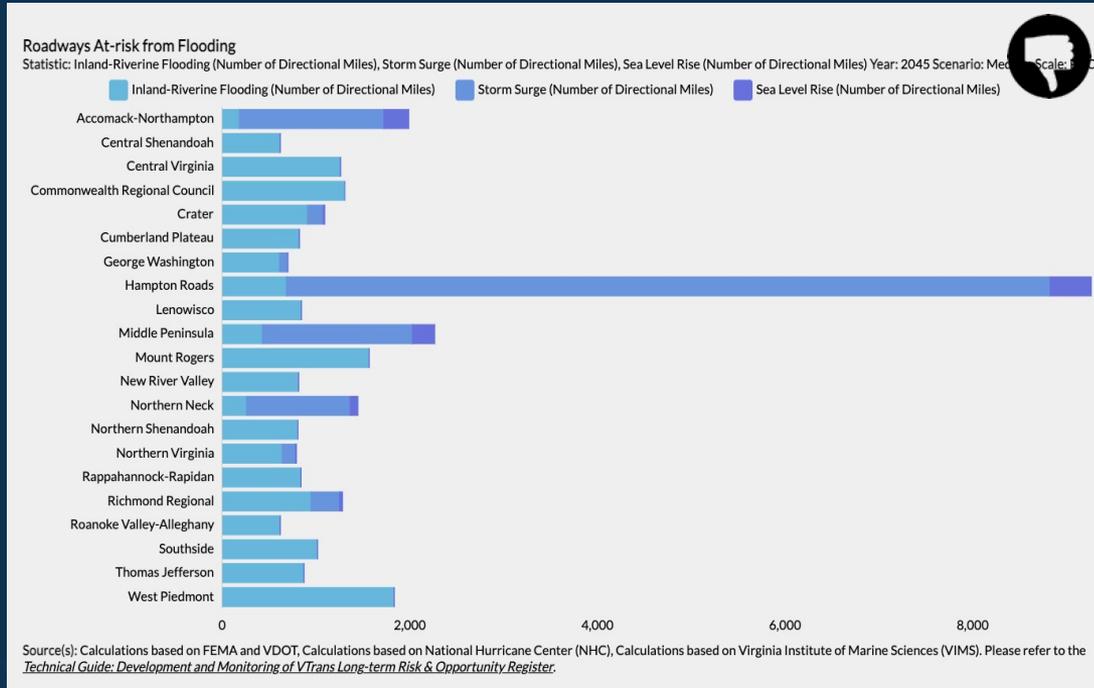
HIGH





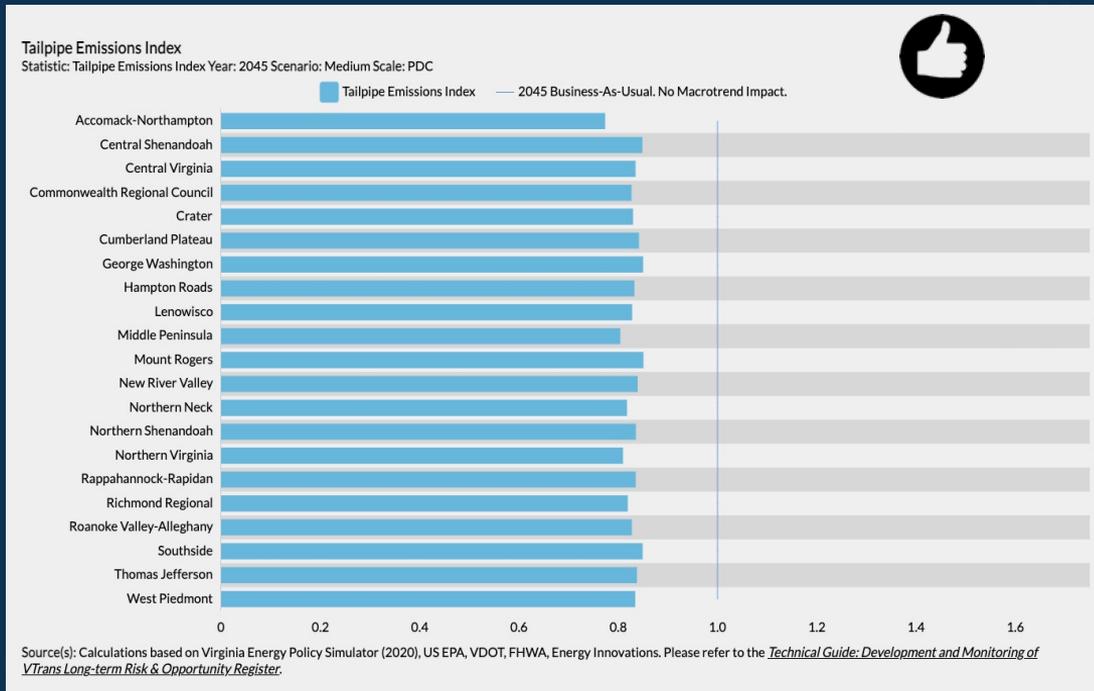
# IMPACTS CTB GOAL D: SYSTEM PRESERVATION

## ROADWAYS AT RISK OF FLOODING: ESTIMATED DIRECTIONAL MILES OF ROADWAY AT RISK OF FLOODING DUE TO SEA LEVEL RISE, STORM SURGE, AND/OR INLAND/RIVERINE FLOODING IN 2045



# IMPACTS CTB GOAL E: HEALTHY AND SUSTAINABLE COMMUNITIES

## TAILPIPE EMISSIONS INDEX: ESTIMATED CHANGE IN TAILPIPE EMISSIONS DUE TO VTRANS MACROTRENDS COMPARED TO THE 2045 BUSINESS-AS-USUAL SCENARIOS



### STATEWIDE IMPACT

**-3%**  
LOW

**-17%**  
MEDIUM

**-69%**  
HIGH



## CTB'S LONG-TERM RISK & OPPORTUNITY REGISTER

- ▶ CTB has developed a Long-term Risk & Opportunity Register
  - ▶ Most of the identified risks and are also relevant for regional entities.
- ▶ CTB has directed OIPI to monitor these Mega and Macrotrends and provide annual updates.

## POTENTIAL ITEMS FOR MPOs AND PDCs

1. Monitor 19 risks and opportunities.
2. Evaluate the extent to which regional long-range transportation plans will be impacted.
3. Study and develop pilots to address the identified risks and opportunities.
  - ▶ OIPI's Technical Assistance program offers resources to evaluate strategies to prepare for several emerging issues.

# THANK YOU!

- ▶ OIPI's Statewide Transportation Planning (STP) Section

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