



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

Key Takeaways: VTrans Risk & Opportunity Register

The National Capital Region Transportation Planning Board

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TODAY'S PRESENTATION: PURPOSE

- ▶ VTrans Policy for Development and Monitoring of the Long-term Risk & Opportunity Register (LT-ROR)
 - ▶ VTrans Key Long-term Takeaways

COMPONENTS OF VTRANS

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
(Recommendations)



LT-ROR POLICY FRAMEWORK

STEP 1

IDENTIFY MEGA- & MACROTRENDS

STEP 2

IDENTIFY METRICS FOR CTB GOALS

STEP 3

ESTIMATE IMPACTS OF MACROTRENDS ON METRICS

STEP 4

DEVELOP VTRANS LONG-TERM RISK
& OPPORTUNITY REGISTER

STEP 5

TRACK MACROTRENDS FOR ANNUAL REPORTING

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

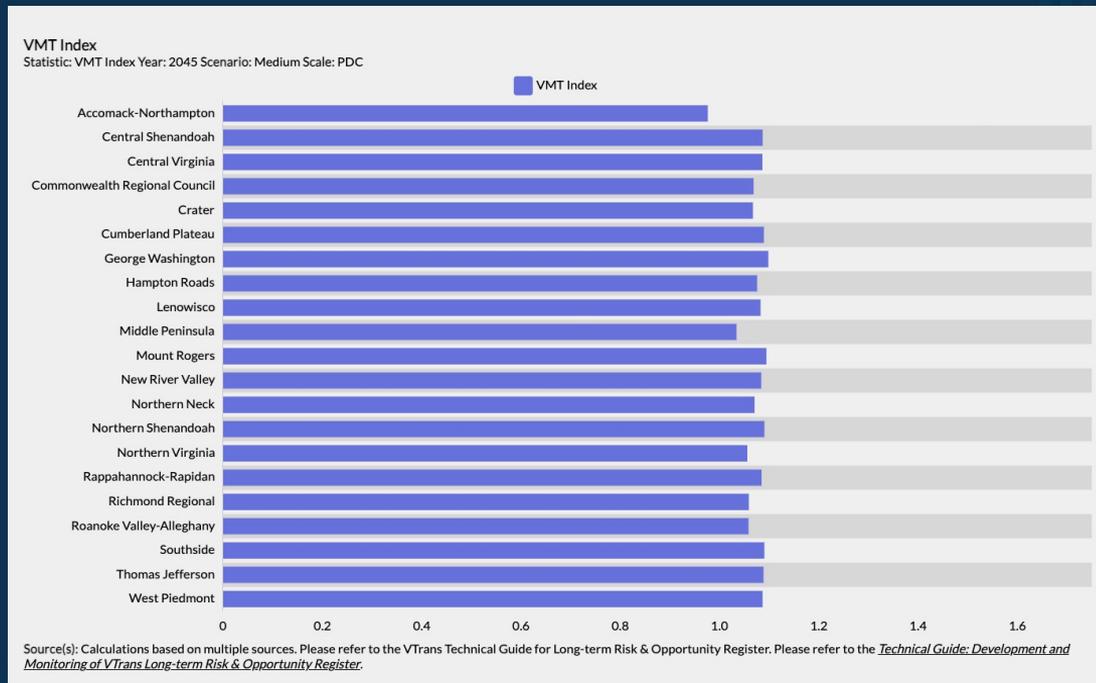


Growth of the 65+ Cohort



Population and Employment Shift

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



STATEWIDE IMPACT

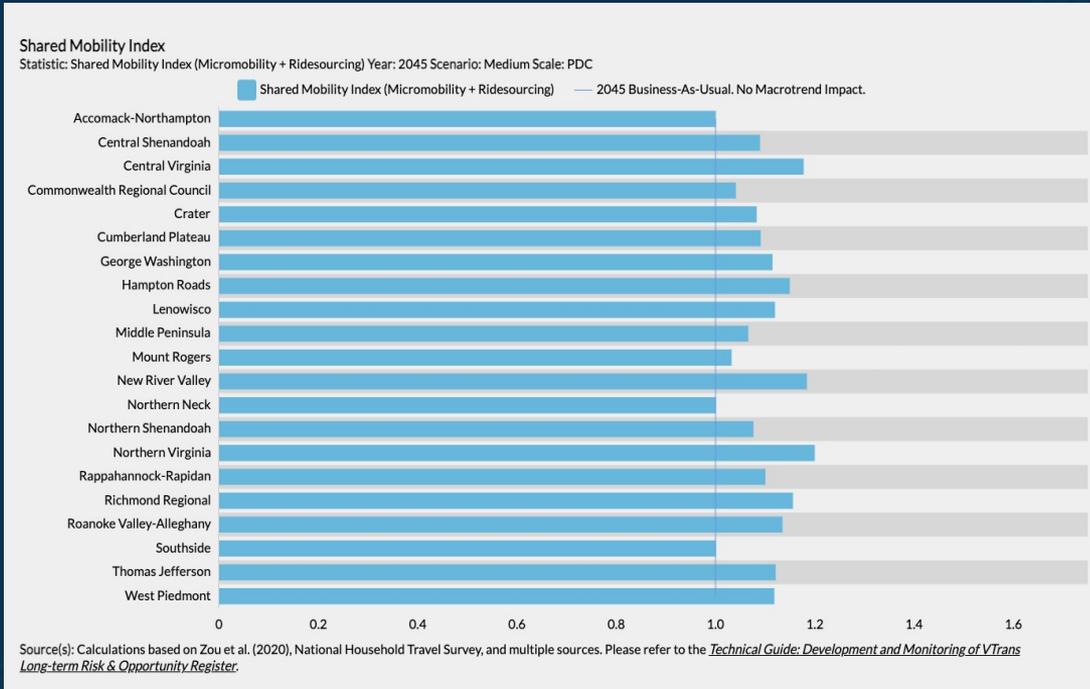
+4%
LOW

+8%
MEDIUM

+17%
HIGH



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%

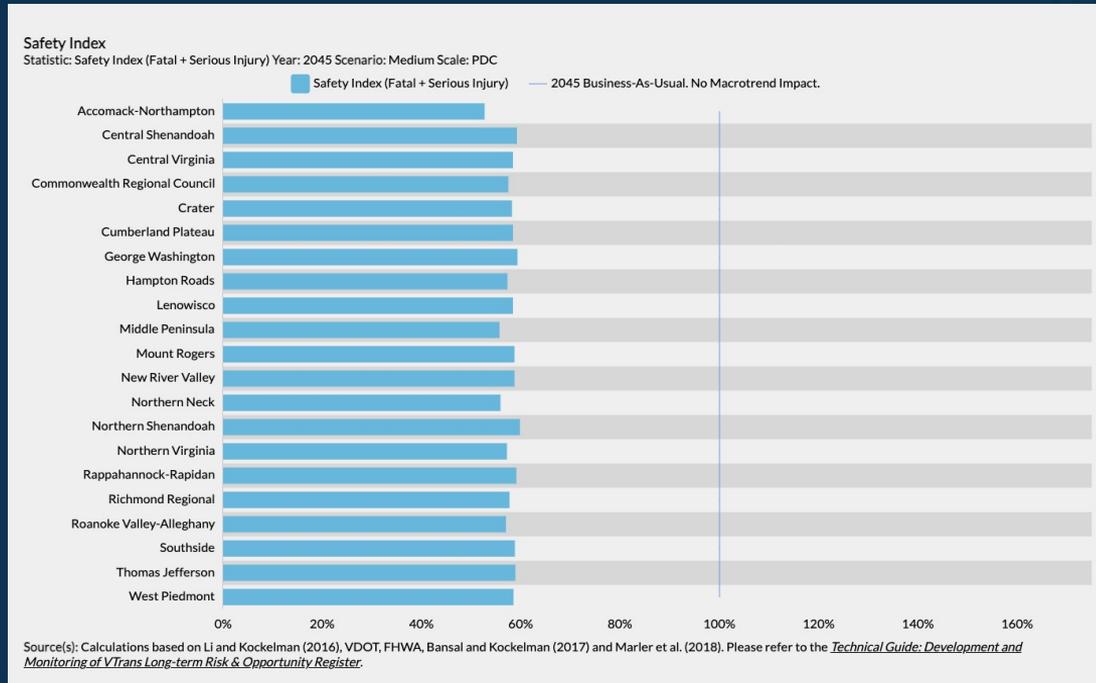
MEDIUM

+27%

HIGH



SAFETY INDEX: ESTIMATED CHANGE IN NUMBER OF CRASHES INVOLVING FATALITIES + SERIOUS INJURIES DUE TO VTRANS MACROTRENDS COMPARED TO THE 2045 BUSINESS-AS-USUAL SCENARIO



STATEWIDE IMPACT

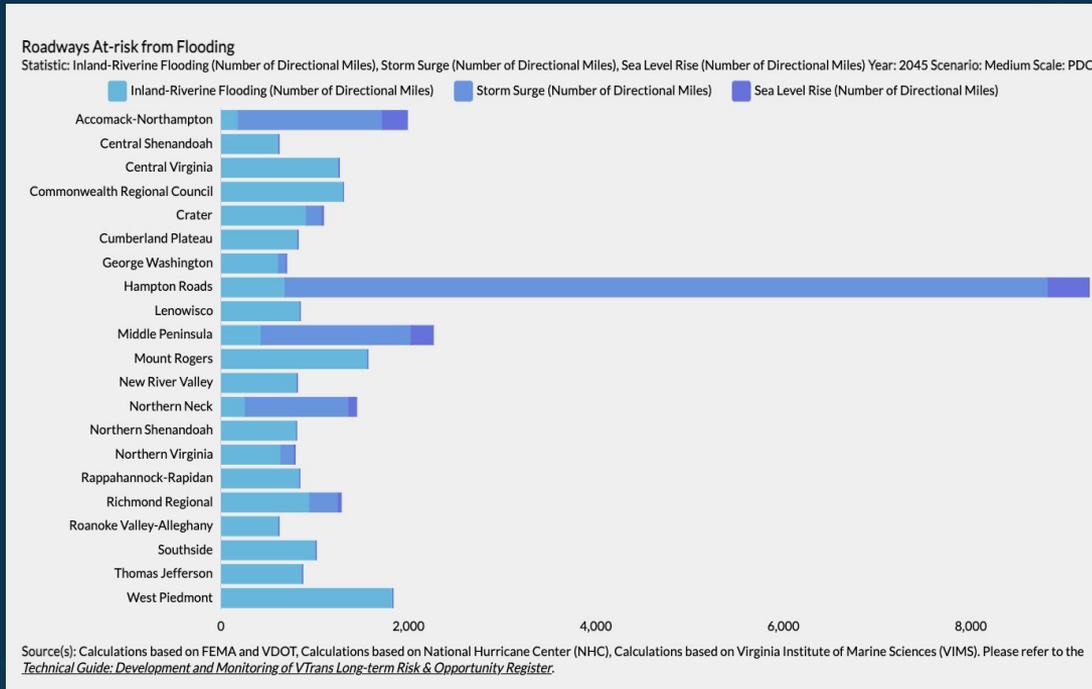
-26%
LOW

-38%
MEDIUM

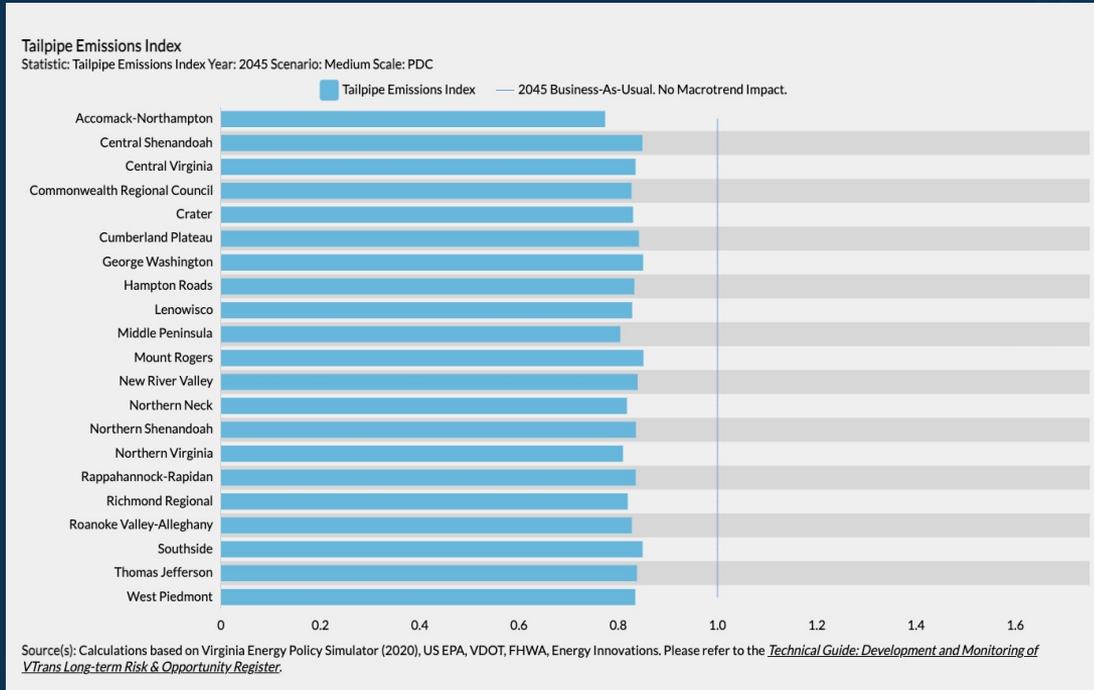
-67%
HIGH



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



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



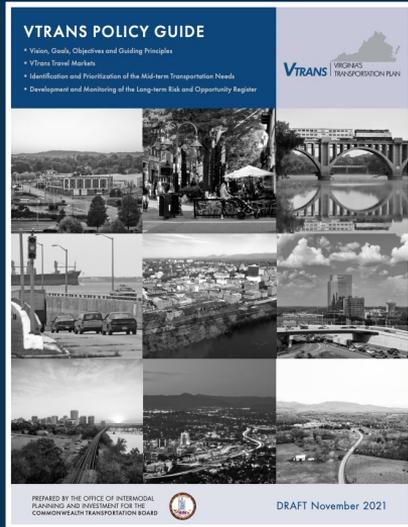
LT-ROR Steps 4 and 5: RISK & OPPORTUNITY REGISTER

- ▶ Step 4: OIPI has identified 19 risks and opportunities (view them [here](#))
 - ▶ Most of the identified Risks and Opportunities would also be relevant for regional and local entities.
- ▶ Step 5: CTB has directed OIPI to monitor these Mega and Macrotrends and provide annual updates.

LT-ROR: RESOURCES

POLICY GUIDE

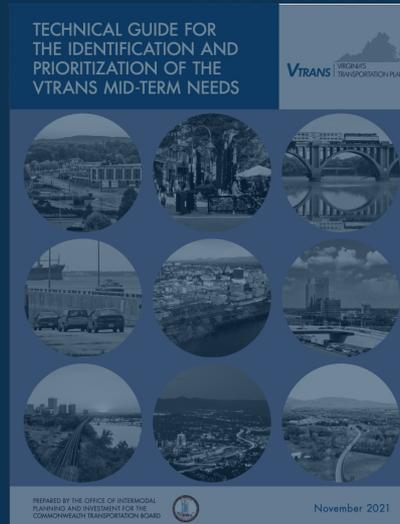
For Policy Makers | Adopted by the CTB



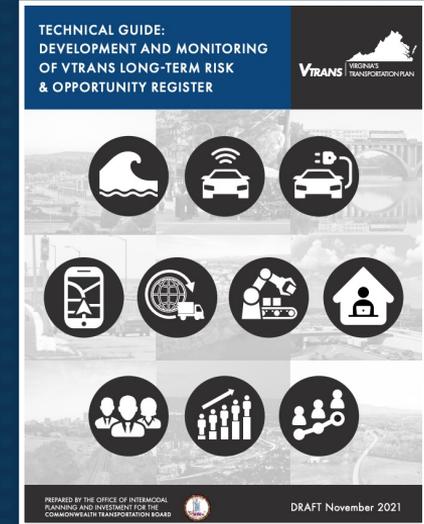
Includes all policies

TECHNICAL GUIDES

For practitioners | Not adopted by the CTB



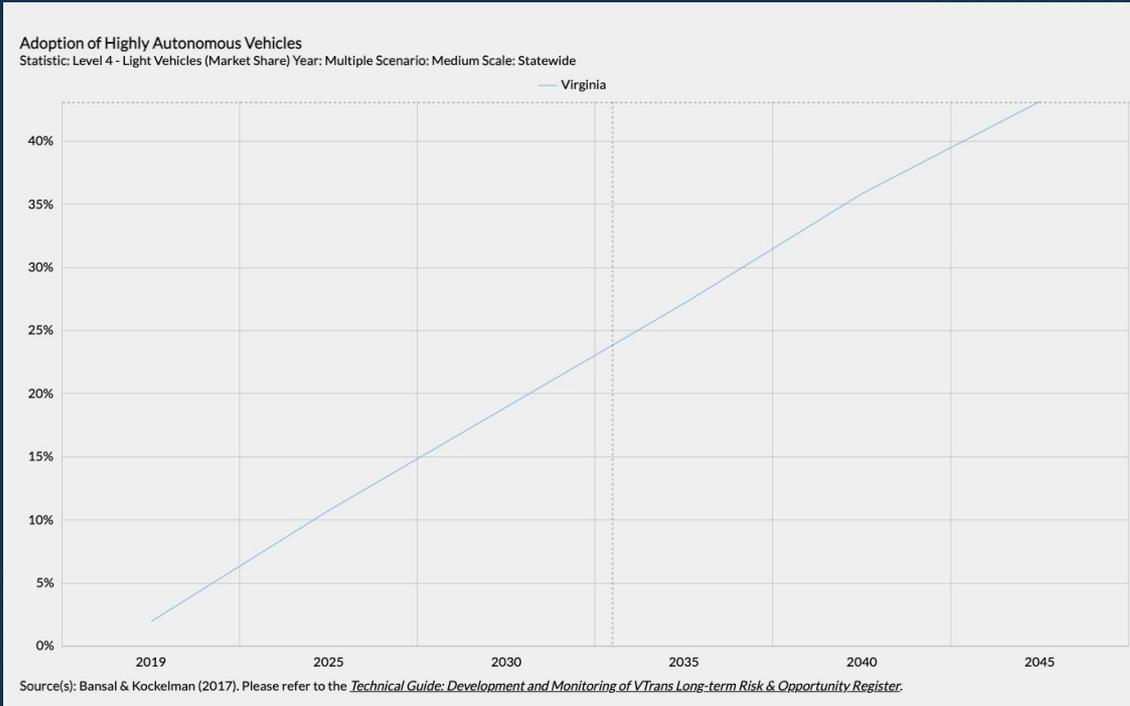
Needs Identification and Prioritization



Long-term Risk & Opportunity Register

► Gather jurisdiction- and region-specific impacts of VTrans Macrotrends

VTrans.org > InteractVTrans > Data Explorer



LT-ROR: WHAT CAN MPO AND PDCs DO WITH THIS INFORMATION?

1. Monitor 19 risks and opportunities
2. Share them with your policy board members
 - ▶ Convey why this matters
3. Make your jurisdictions aware of it
 - ▶ Convey why this matters. Get ahead of the curve on some of the more localized impacts.
4. Study and develop pilots to address the identified risks and opportunities
 - ▶ GAP-TA Program Component 2 offers resources
5. Evaluate the extent to which your L RTPs will be impacted

➤ OIPI will:

- Monitor long-term risks & opportunities and modify based on new data and information
- Collaborate with VDOT, DRPT, and other stakeholders to implement and monitor the [VTrans Strategic Actions](#)
- Inform local and regional jurisdictions of available resources to ensure all stakeholders are aware

THANK YOU!

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

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