



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

OIPI Statewide Transportation Planning (STP) Updates

OIPI-VDOT-DRPT-MPO Quarterly Coordination Meeting

Jitender Ramchandani, AICP, PMP
Office of Intermodal Planning and Investment

September 8, 2021



➤ VTrans

- Long-term Risk & Opportunity Register
- Strategic Actions



➤ Datasets for stakeholders

➤ Growth and Accessibility Planning (GAP) Technical Assistance Program

- Application Intake



➤ Upcoming Outreach and Engagement Opportunities+

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)



JAN 2020

JAN 2020
MARCH 2021

BY THE END OF 2021

LONG-TERM RISK REGISTER: DRAFT POLICY FRAMEWORK

STEP 1

IDENTIFY MEGA- & MACROTRENDS

STEP 2

IDENTIFY SURROGATES FOR CTB GOALS

STEP 3

ESTIMATE IMPACTS OF MACROTRENDS ON SURROGATES

STEP 4

DEVELOP VTRANS LONG-TERM RISK
& OPPORTUNITY REGISTER

STEP 5

TRACK MACROTRENDS FOR ANNUAL REPORTING

MEGATREND

IMPACT OF CLIMATE PATTERNS / GREENHOUSE GAS EMISSIONS

MACROTREND



Increase in Flooding Risk

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

Other Known Macrotrends

- Heavy Precipitation
- Warm/hot extremes
- Cold extremes

MEGATREND

IMPACT OF CLIMATE PATTERNS / GREENHOUSE GAS EMISSIONS

MACROTREND



Increase in Flooding Risk

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

TECHNOLOGICAL ADVANCEMENTS



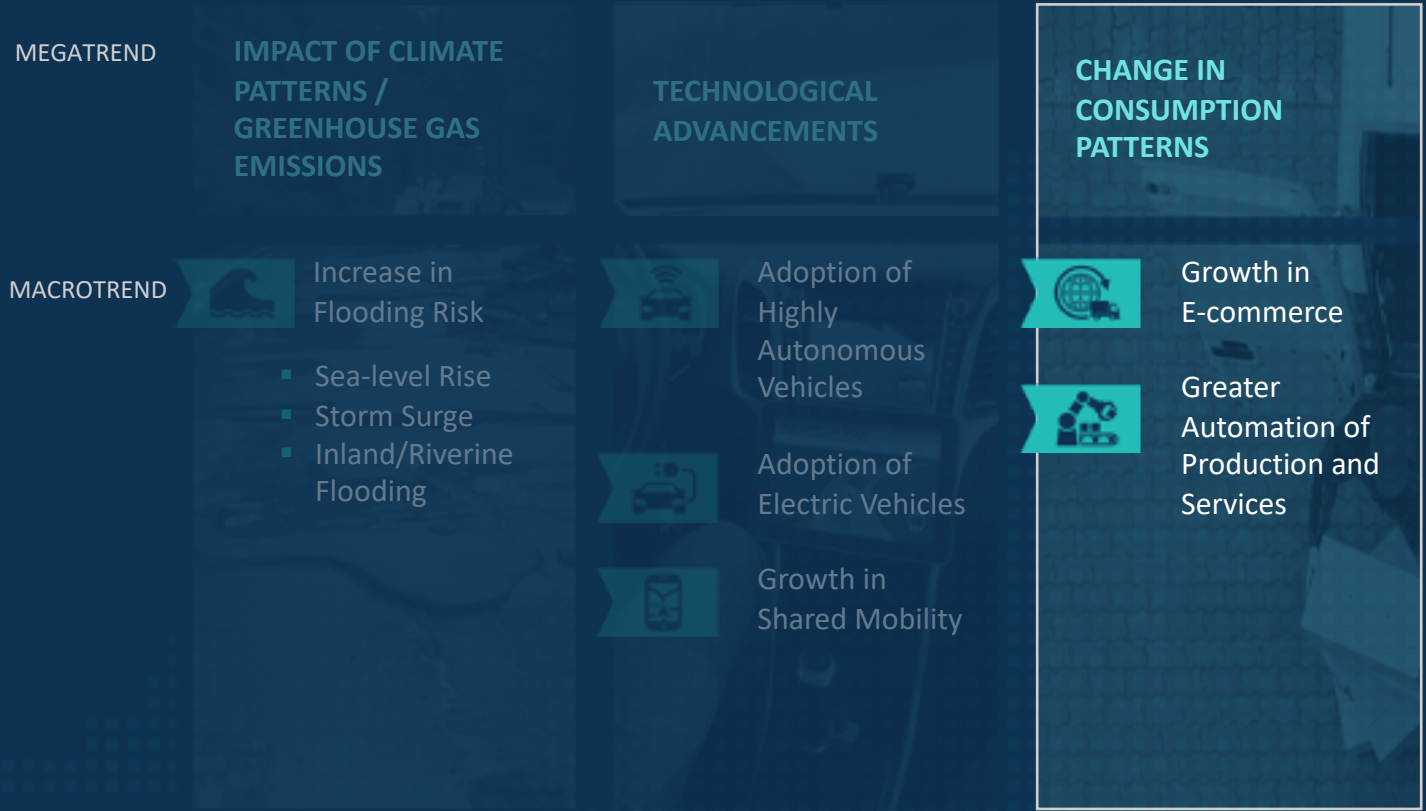
Adoption of Highly Autonomous Vehicles

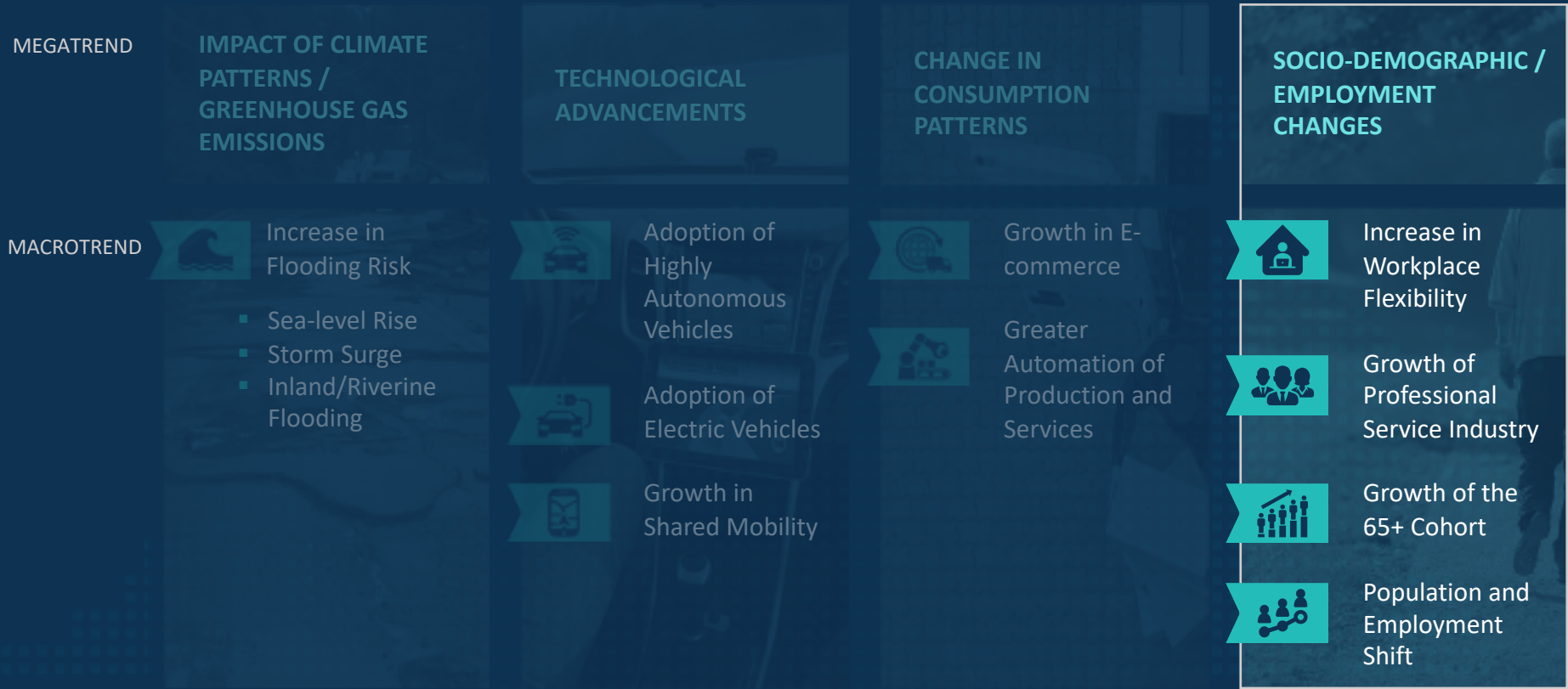


Adoption of Electric Vehicles



Growth in Shared Mobility





Increase in flooding risk impacts CTB Goal D which focuses on proactive system management.

| | GOALS | SURROGATES FOR CTB GOALS |
|---|--|---|
|  | Economic Competitiveness and Prosperity | Vehicle Miles Traveled (VMT) |
|  | Accessible and Connected Places | Number of Non-SOV Mode Trips |
|  | Safety for All Users | Number of Crashes Involving Fatalities and Serious Injuries |
|  | Proactive System Management | Roadways At Risk from Flooding |
|  | Healthy Communities & Sustainable Transportation Communities | Tailpipe Emissions |

Step 3 quantifies cumulative impacts of Macrotrends on Surrogates for CTB Goals

Example:

- Impacts of macrotrends on Vehicles Miles Traveled (VMT)
- Impacts of macrotrends on safety

 Data Explorer

Data and infographics will be available on InteractVTrans, Data Explorer for printing and download.

EXAMPLE

| # | Nature | Description of Risk/Opportunity | Impact on Transportation | | | | | Proximity | Priority |
|---|-------------|---|--------------------------|--------|--------|--------|--------|-----------|----------|
| | | | Goal A | Goal B | Goal C | Goal D | Goal E | | |
| 1 | Risk | A large number of state's roadways are at risk from flooding | | | | High | | Mid-term | |
| 2 | Opportunity | (Proactively) eliminate or mitigate identified flooding risks | | | | High | | Mid-term | |
| 3 | Risk | Several unknown and unquantified flooding risks might be present | | | | Medium | | Long-term | |
| 4 | Risk | Impacts of increased flooding risk are disproportionately higher for certain areas and populations | | Medium | | Medium | | Long-term | |
| 5 | Opportunity | Increase state's preparedness to address other macrotrends associated with climate patterns megatrend | | | | Low | | Mid-term | |

Resources:






- VTrans Trend Analysis [Webinar 2](#)
- VTrans Vulnerability [Webpage](#)

VTRANS MACROTREND

VTRANS TREND TRACKERS

| | |
|---|--|
|  | <ul style="list-style-type: none"> ▪ Number of directional miles at risk from sea level rise ▪ Number of directional miles at risk from storm surge ▪ Number of directional miles at risk from inland/riverine flooding |
|  | <ul style="list-style-type: none"> ▪ Market Penetration of Highly Autonomous Vehicles* ▪ Attitude and Preferences for Adoption of Highly Autonomous Vehicles* |
|  | <ul style="list-style-type: none"> ▪ Market Penetration of Electric Vehicles* ▪ Attitude and Preferences for Adoption of Electric Vehicles* |
|  | <ul style="list-style-type: none"> ▪ Access to Shared Mobility Services* ▪ Utilization of Shared Mobility Services by Type* |
|  | <ul style="list-style-type: none"> ▪ Number of Warehouse and Distribution Centers ▪ Square Footage of Warehouse and Distribution Centers ▪ Share of E-commerce Sales (Business-to-business, business-to-customers) |

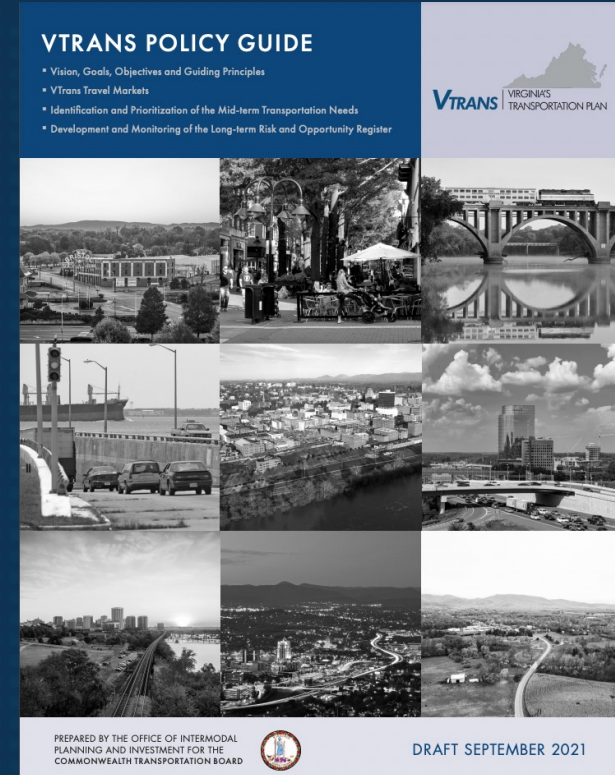
*Based on Biennial VTrans State of Transportation Survey

| VTRANS MACROTREND | VTRANS TREND TRACKERS | |
|--|--|--|
|  | <ul style="list-style-type: none"> ▪ Value output of 3D Printing ▪ Number of short-range drone deliveries ▪ Number of long-range drone deliveries | |
|  | <ul style="list-style-type: none"> ▪ Number of Workers with Workplace Flexibility* ▪ Utilization of Workplace Flexibility* | |
|  | <ul style="list-style-type: none"> ▪ Share of Professional Service Industry | |
|  | <ul style="list-style-type: none"> ▪ Number of Virginias Age 65 or higher ▪ Share of Age 65+ Cohort | |
|  | <ul style="list-style-type: none"> ▪ VTrans Land Use Vitality Index ▪ Population | <ul style="list-style-type: none"> ▪ Employment ▪ Income |

*Based on Biennial VTrans State of Transportation Survey

LONG-TERM RISK REGISTER: MORE INFORMATION

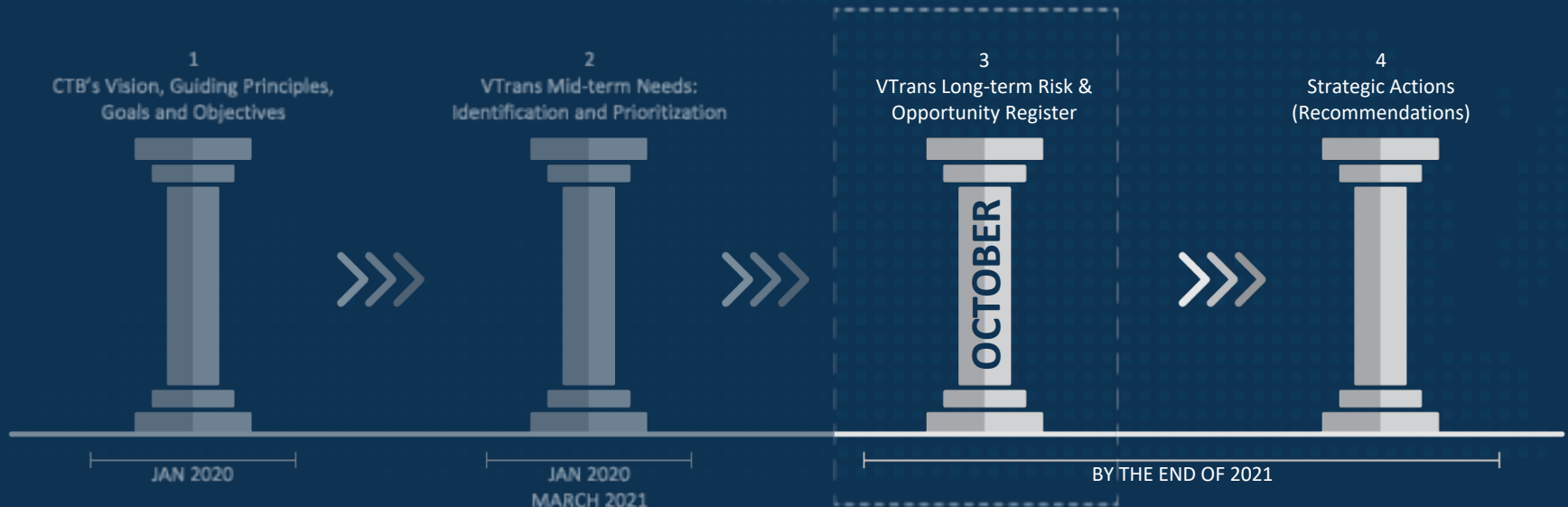
- More information ([Webpage](#))
- The VTrans Policy Guide has been updated to include Chapter 6 for the draft policy.



LONG-TERM RISK REGISTER: NEXT STEPS

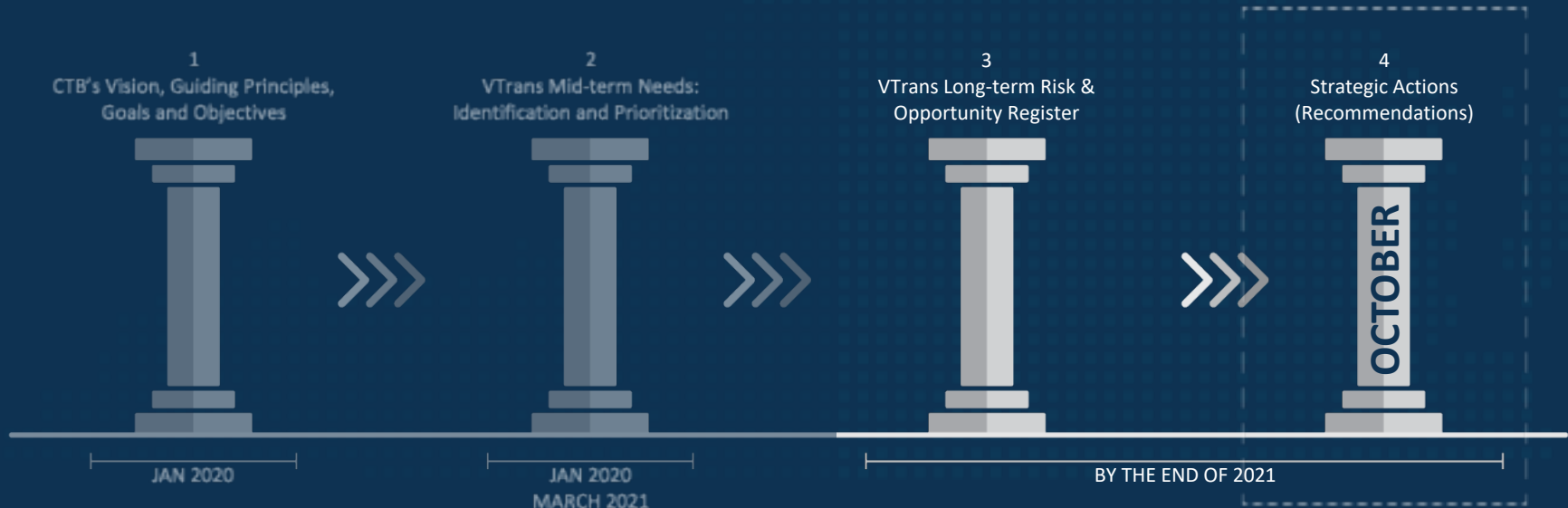
► Schedule

- Presentations at CTB Workshops in September and October
- Request for Action in December



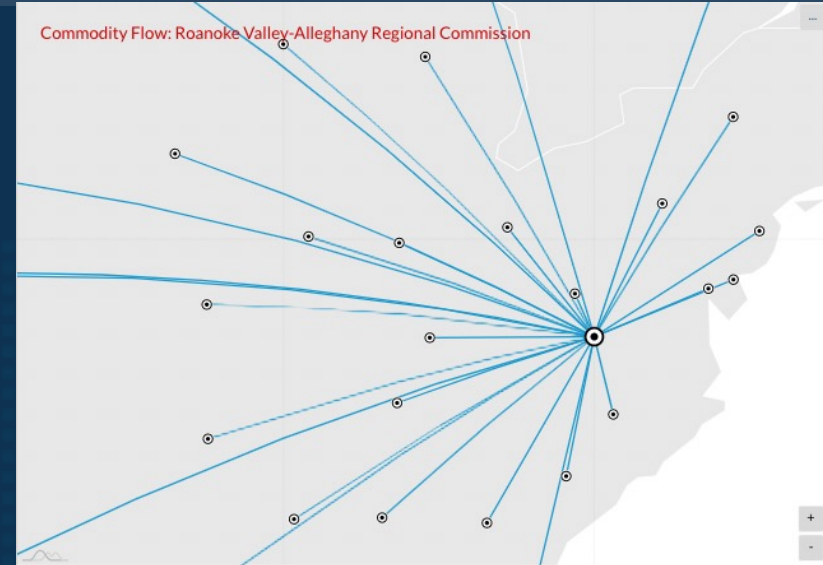
STRATEGIC ACTIONS: NEXT STEPS

- ▶ Actions to advance CTB goals, address needs and priorities and address identified long-term risks and opportunities.
- ▶ Schedule
 - Presentation at CTB Workshops in October
 - Request for Action in December



➤ Freight Origin-Destination and Commodity Flows

- Available for MPOs, PDCs, and Construction Districts
- Available to view and download [here](#)



Source: Transearch (Truck Data), Surface Transportation Board (STB) (Rail Data)
This origin-destination map shows top 30 locations matching your current filter settings. Note that wordcloud for commodities cannot be shown for rail mode at smaller geographies such as PDC and Construction District levels.
Download PDF: [Metadata-Commodity Flow](#)

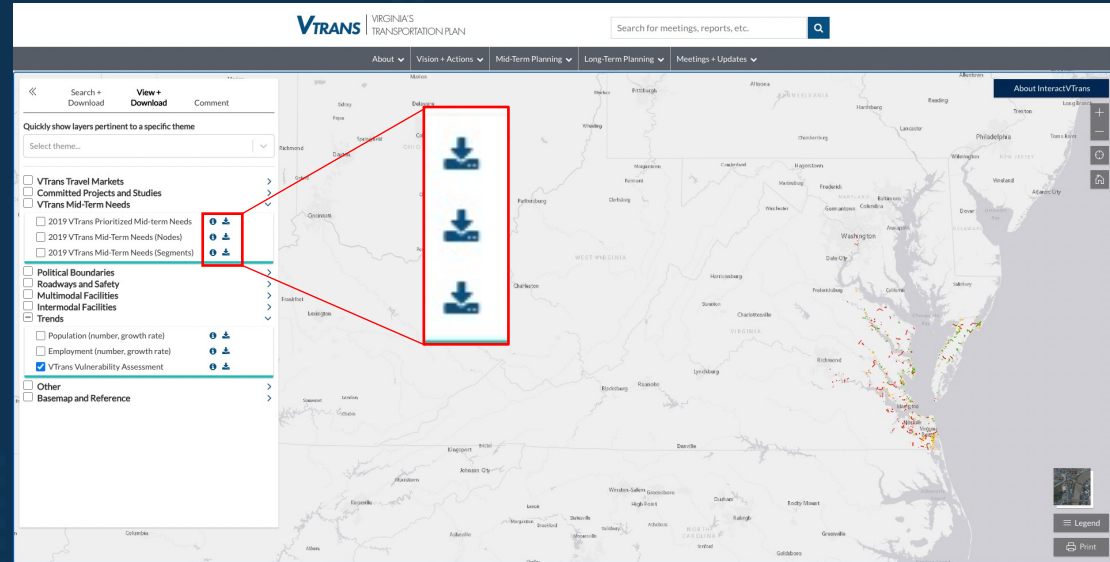


DATASETS FOR STAKEHOLDERS: DOWNLOAD FUNCTION

➤ Datasets Available to view and download [here](#)

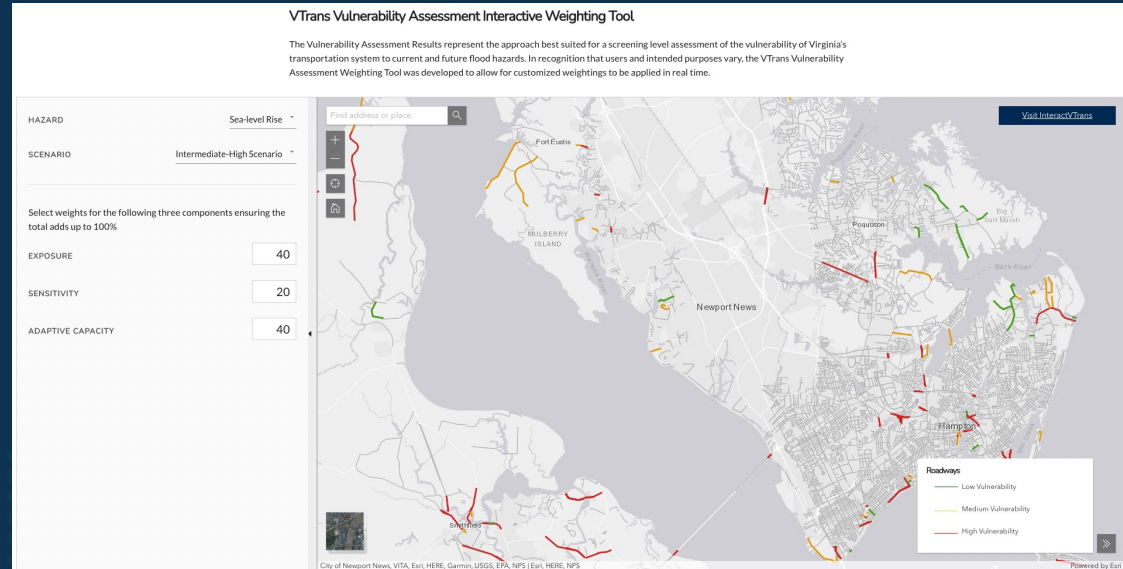
- Examples:

- Vulnerability Assessment (Sea level rise, Storm Surge, Inland/riverine flooding)
- VTrans Mid-term Needs
- VTrans Mid-term Prioritized Needs



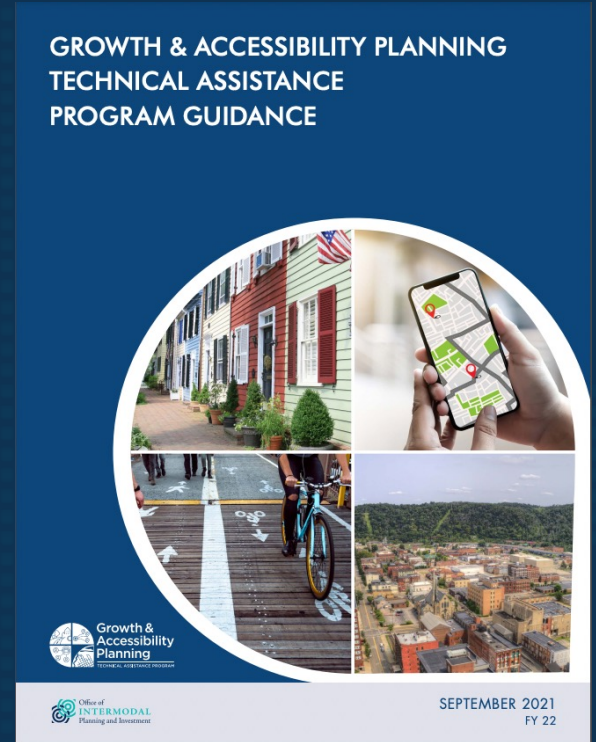
► Interactive Weighting Tool for Vulnerability Assessment

- Available [here](#)
- Modify weighting for exposure, sensitivity, and adaptive capacity



GROWTH AND ACCESSIBILITY PLANNING (GAP) PROGRAM: CONTEXT

- GAP Technical Assistance Program was launched FY21 and provides planning related technical assistance.
- FY22 Application Intake
 - September 1 – November 2, 2021
- More Information
 - FY22 GAP Program Guidance
 - [GAP-TA Webpage](#)



Outreach and Engagement

- ▶ Webinar: VTrans Long-term Risk & Opportunity Register ([Registration link](#))
- ▶ Webinars: Growth and Accessibility Planning (GAP) Technical Assistance
 - Webinar 1: [Registration link](#)
 - Webinar 2: [Registration link](#)
 - Both will have identical content.



CONTACT INFORMATION

➤ Jitender Ramchandani

- Jitender.Ramchandani@oipi.virginia.gov
- 804.489.4295

➤ Kathryn Schwing

- kathryn.schwing@oipi.virginia.gov
- 804.786.2362

➤ Chris Wichman

- chris.wichman@oipi.virginia.gov
- 804.316.4278