

# 2050 Multimodal Long-Range Transportation Plan



Stakeholder Meetings – Round 4  
June 7 – 8, 2021

# Agenda

- 2050 LRTP Schedule & Status
- Gap Assessment
- Portfolio Overview
- Strategies and Actions
- Priority Actions
- Next Steps

# 2050 LRTP Accomplishments

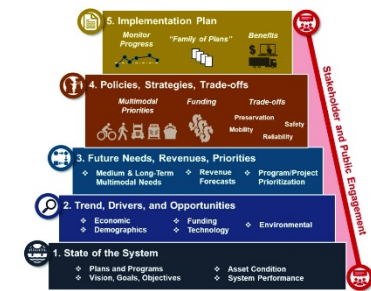
## Work Completed Since April

- ✓ **Outreach –**
  - ✓ Social Media Posts
  - ✓ Secretary Briefing
  - ✓ Virtual Public Meeting Scheduled (June 15<sup>th</sup>)

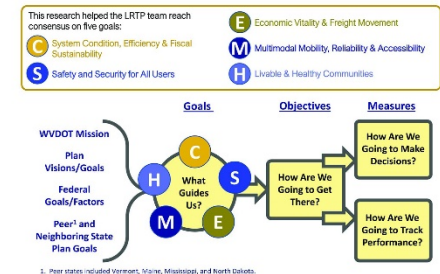
- ✓ **Gap Assessment\***
- ✓ **Portfolio & Strategy Fact Sheets\***



### How are we updating the WVLRTP?



### The WVLRTP aims to achieve the following goals and objectives:



\* Posted to 2050 LRTP website



# 2050 LRTP Outreach

## June – August



**2050 Plan:** <40pg Executive Summary supplemented by website materials (fact sheets, technical reports)

# 2050 LRTP

## Phase 5

### 1. Strategy and Actions Assessment

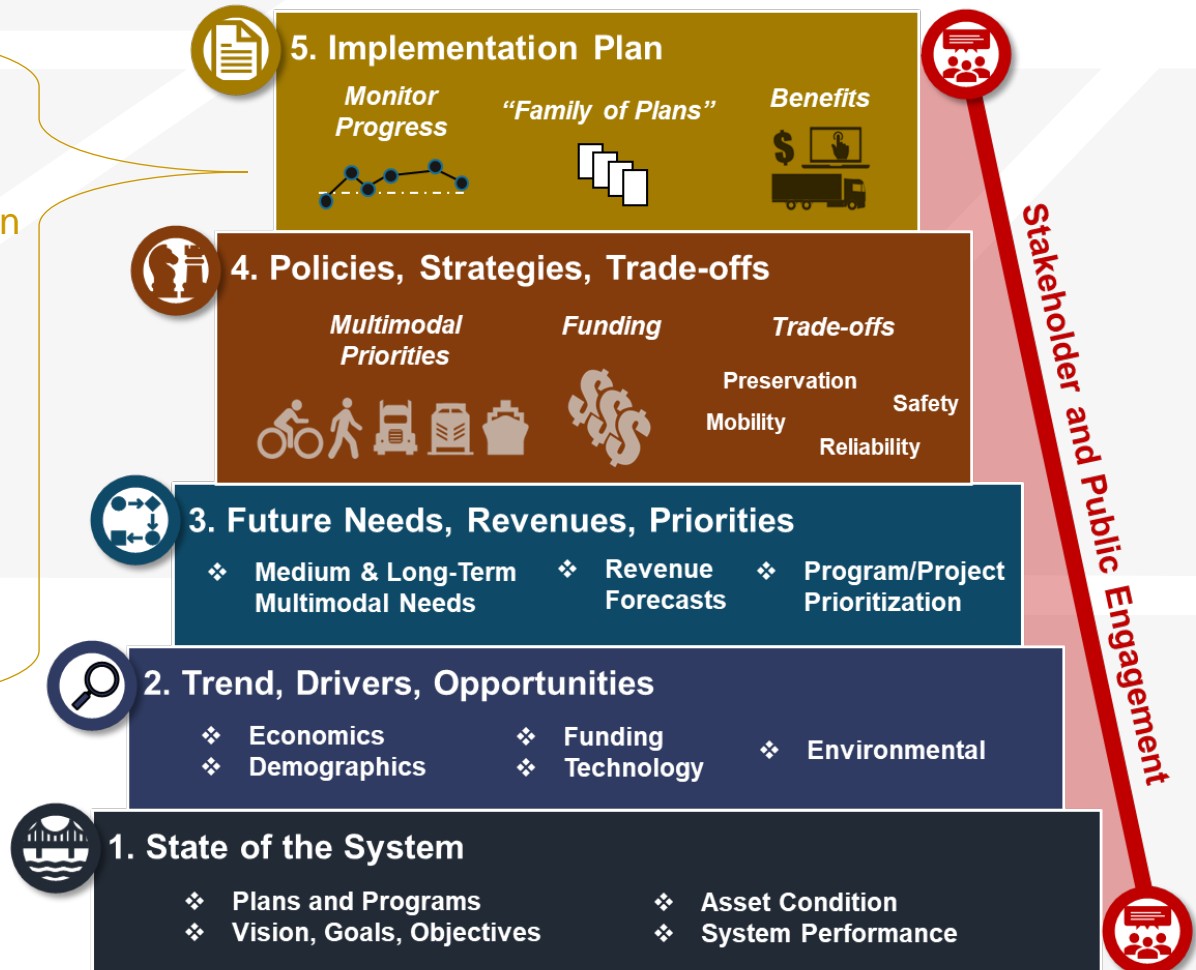
alignment with plan goals, potential benefits, implementation readiness, stakeholder input

### 2. Priority Short Term Actions

identify high priorities, low cost/high benefit activities, proven techniques and tools

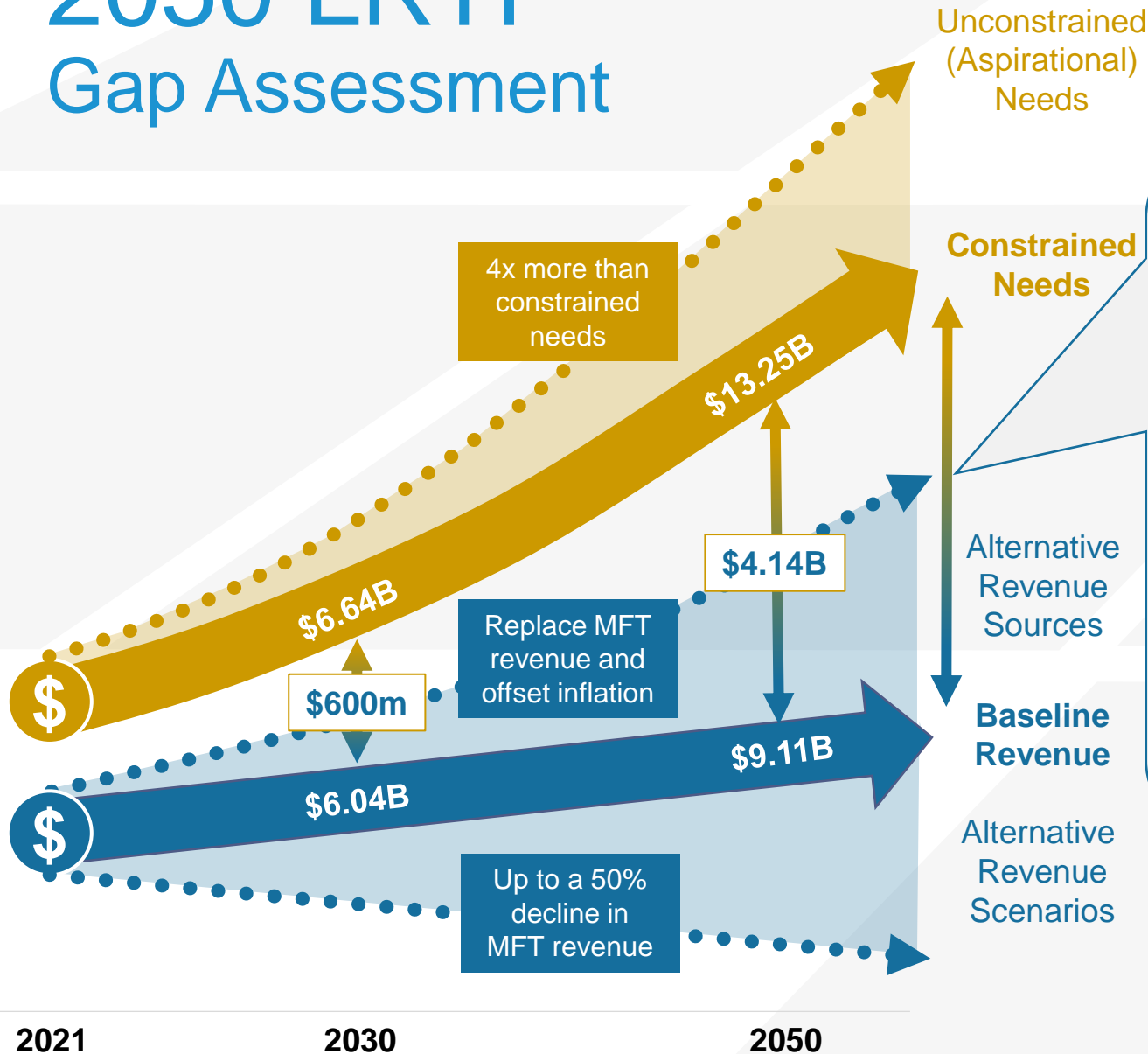
### 3. Final 2050 Plan

45-day public review, transition to implementation



# Gap Assessment

# 2050 LRTP Gap Assessment



- The gap will continue to increase as needs and costs increase
- The longer that revenue sources remain fixed, revenue risks increase from inflation and other external drivers
- New revenue sources can reduce the gap, but that takes time and legislative action
- More efficient spending can also reduce the gap, and can start now

**Guides our strategies and actions**



# 2050 LRTP

## Gap Assessment Conclusions

### 2050 LRTP Strategies and Actions



**As needs increase**, costs continue to rise, assets continue to age, economy diversifies, and travel patterns change

### Gap Increases

**As revenues yield less** (if sources remain constant) due to inflation, emerging trends and uncertainties

**If WVDOT increases efficiency** through new technology and best practices leading to lower costs and higher return on investment

### Gap Decreases

**If modified and new revenue sources can limit the impact of trends** that weaken existing revenue sources





# Portfolio Overview

# Defining Portfolios



**Focus on critical asset management needs** by balancing asset preservation strategies across the entire system



**Focus on highway safety and reliability needs**, including behavioral and systemic safety improvements and operations and capacity strategies



**Focus on existing and emerging technology opportunities** to optimize program delivery, capitalize on opportunities, build new partnerships, and prepare for new technologies



**Focus on increasing investment in multimodal options for passenger and freight trips** to improve access to destinations and opportunities



**Focus on serving disconnected communities and addressing network gaps** to improve access to jobs, health care, recreation, and key industries



# Portfolio Strategies



<p><b>Preserve and comprehensively improve bridge conditions</b></p>	<p><b>Expand safety awareness which target driver behavior and decision making</b></p>	<p><b>Invest in asset condition and performance tools to better inform decisions</b></p>	<p><b>Integrate complete streets, regional trails, rail trails, on-road bicycle systems, and ADA compliance programs</b></p>	<p><b>Ensure rural roads are accessible, reliable, &amp; resilient to provide vital links for all residents &amp; visitors</b></p>	
<p><b>Preserve and comprehensively improve pavement conditions</b></p>	<p><b>Deploy more countermeasures in the form of rumble strips, guardrails, retroreflective pavement markings</b></p>	<p><b>Expand coordination activities with activities with partner agencies and private sector</b></p>	<p><b>Modernize and market commercial service airports and expand general aviation opportunities</b></p>		
<p><b>Deliver equitable and balanced asset management to foster local and regional commerce</b></p>	<p><b>Deploy localized roadway design improvements and enhancements</b></p>	<p><b>Support policy enabling electric, connected, and autonomous vehicle technologies</b></p>	<p><b>Ensure transit assets remain in working condition, improve passenger facilities, and expand and implement new flexible systems</b></p>		<p><b>Leverage technology to expand education opportunities especially in underserved communities</b></p>
<p><b>Ensure support facilities, vehicles, roadside assets are in good condition, and enhance quality and capacity of travel plazas and welcome centers</b></p>	<p><b>Expand statewide Intelligent Transportation Systems along high priority WV routes</b></p>	<p><b>Develop a statewide mobility plan and program that coordinates transit and other mobility services</b></p>	<p><b>Enhance passenger rail service and reliability and improve access to key destinations</b></p>		<p><b>Promote access to health programs &amp; services for all citizens across developed &amp; rural communities</b></p>
<p><b>Protect at risk assets and maintain stormwater facilities</b></p>	<p><b>Enhance operational, design, and access management features of high priority WV routes</b></p>	<p><b>Implement new innovative project delivery and management strategies</b></p>	<p><b>Collaborate with Class I and shortline railroads to improve rail crossings, address bottlenecks, and provide access to industries</b></p>		



# 2050 LRTP

## Portfolio Strategies – Fact Sheets

### Fact Sheets (5 total)

- **Technical Summary**  
distilled “at a glance” information in reader friendly format
- **Story Telling**  
highlights long range plan alignment, performance opportunities, implementation readiness and resiliency to future change
- **Resource Material for Partners, Public**  
Packet for distribution to WVDOT planning partners and the public

### PORTFOLIOS & STRATEGIES

INNOVATION PORTFOLIO




Focus on existing and emerging technology opportunities to optimize program delivery, expand technology pilots and use cases, build new partnerships and enhance statewide mobility.



#### GUIDING PRINCIPLES

- Strategies which enhance agency response, data streams, and communication with changing infrastructure conditions to facilitate an environment of data-driven decision making
- Strategies which can provide more real-time information to transit providers and users through web and mobile applications
- Strategies which cultivate a “technology awareness” within all phases of project planning, design, operations, and construction
- Strategies which position WVDOT to be proactive and to leverage new opportunities to partner with the private sector, and to pilot and deploy new technologies

#### PORTFOLIO STRATEGIES



These 5 strategies will foster new partnerships with other public agencies, expand the potential for private investment, efficiently manage existing assets, and prepare West Virginia for the future of transportation.



# 2050 LRTP

Portfolios → Strategies → Actions



**Actions** – Implementation opportunities to address the gap

- **Policy, Practice or Program** –  
Already underway? State or federal requirement? Recommended from other plans, studies? Significant policy or regulatory change?
- **Partnerships** –  
To what extent does WVDOT lead or rely on partners?
- **Risk, Resources, Readiness, Impact** –  
Challenges to and opportunities for successful implementation?



# Strategies & Actions

# Strategies to Actions

## Prepare for Implementation

<b>CATEGORY</b>	<b>TIMEFRAME</b>	<b>PRIORITY</b>
<ul style="list-style-type: none"><li>» <b>Policies</b> – guide &amp; direct resources</li><li>» <b>Practice</b> – multimodal performance</li><li>» <b>Partnerships</b> – expand existing, add new</li><li>» <b>Technology</b> – leverage emerging</li></ul>	<ul style="list-style-type: none"><li>» <b>Short Term</b> – by 2025 or 2030</li><li>» <b>Long Term</b> – 2030 and beyond</li></ul>	<ul style="list-style-type: none"><li>» <b>Agency Importance</b></li><li>» <b>Highest Potential Impact</b></li></ul>

**Actions refined through:**  
Coordination with DOT staff  
Round 4 Stakeholder meetings  
Virtual Meetings for public review

**Implementation and Final Plan**



# Strategies to Actions Categories

## Categorized for Plan Implementation



**Policies** to *guide* strategic decisions and resources

- Report miles of Dig Once Implementation



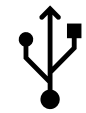
**Practices** to *impact* multimodal asset, safety and mobility performance

- Bridge management and linear referencing system integration
- Electronic management of traffic citations
- First-to-last mile transit to rail station connections



**Partnerships** to *coordinate* transportation investments with state goals and objectives

- Expand rail to trail conversions to promote post-pandemic tourism
- Deploy shared ride services to connect mobility impaired to essential health services



**Technologies** to *enable* enhanced program delivery and asset management

- Expand drone use for bridge inspections
- Support local transit fleet electrification
- Leverage broadband to attract more connected vehicle pilots and demonstration





# Strategies to Actions

## Timeframe

### Tiered for Plan Implementation

**S1 - Within each strategy**  
will be targeted short-term actions  
(specific policies, practices, programs, projects)

Incorporate into  
**programming cycle** (3-6 years)

Trade-off decisions and priorities should consider readiness, resource availability, implementation barriers (institutional, technology, etc...), and overall acceptance/willingness to implement

**S2 - Within each strategy**  
will be long-term actions  
(planning and policy development and other actions with a longer lead time)

Incorporate into  
**planning cycle** (7-10+ years)



# Strategies to Actions

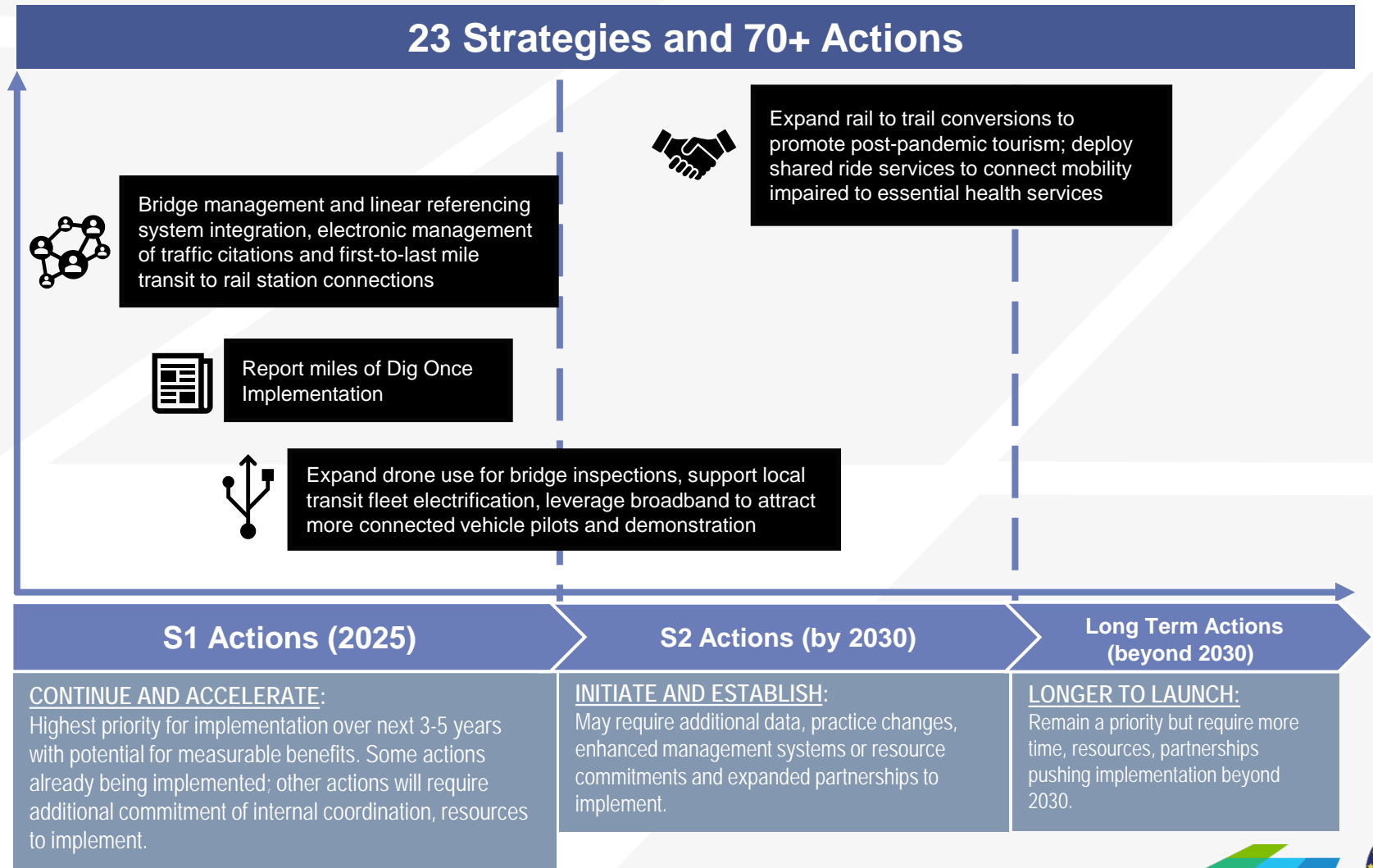
## Priority

### Prioritized for Plan Implementation

Highest Priority Actions (S1)	High Priority Actions (S2)
<ul style="list-style-type: none"> <li>○ Implementation focus within next 5 years, start-up next 1-2 years</li> <li>○ Cost and resource efficient opportunities to address recurring needs</li> <li>○ Could lead to STIP updates</li> </ul>	<ul style="list-style-type: none"> <li>○ Implementation focus within next 10 years or beyond</li> <li>○ May start in next 5 years, but full implementation will take longer</li> <li>○ More focus on policy and process change</li> </ul>
<p style="text-align: center;"><b><u>Tactical</u></b></p> <p>what is the action, how do we do it, what resources are needed, who is in charge, who are the partners, what are the immediate next steps</p>	<p style="text-align: center;"><b><u>General</u></b></p> <p>what is the action, what is the objective, how do we get started, who are the partners, what can we achieve over the next decade</p>

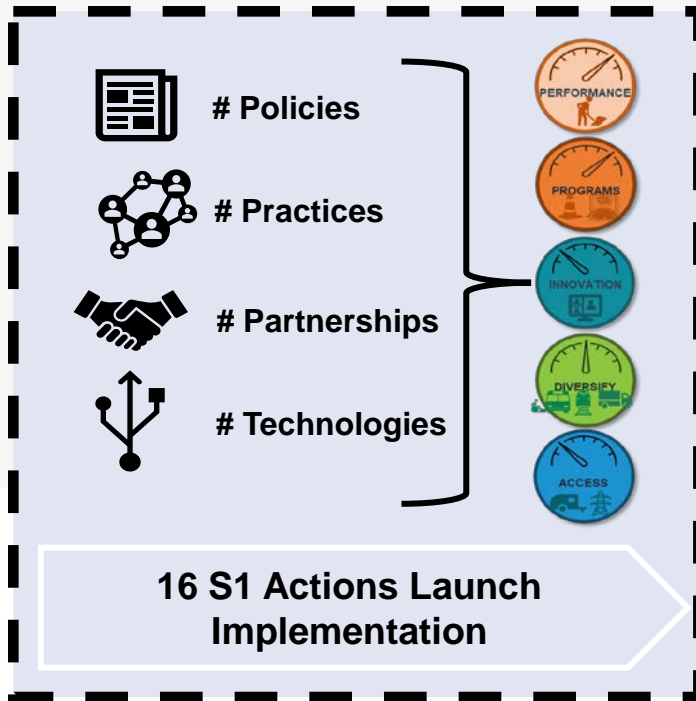
# Plan Implementation

## Balance Category – Timeframe - Priority



# Plan Implementation

## Next 5 Year Focus



A subset of actions are recommended as highest priority through 2025.

- Across Portfolio Strategies
- Reflect SME, stakeholder input
- Underway in some form
- Quick Wins
- Designated WVDOT Division/Unit "champions"

### Example S1 Actions

Integrate B/PMS into existing LRS System

Expand use of countermeasures - rumble strips, retroreflective pavement markings, clear zones/fixd object removal.

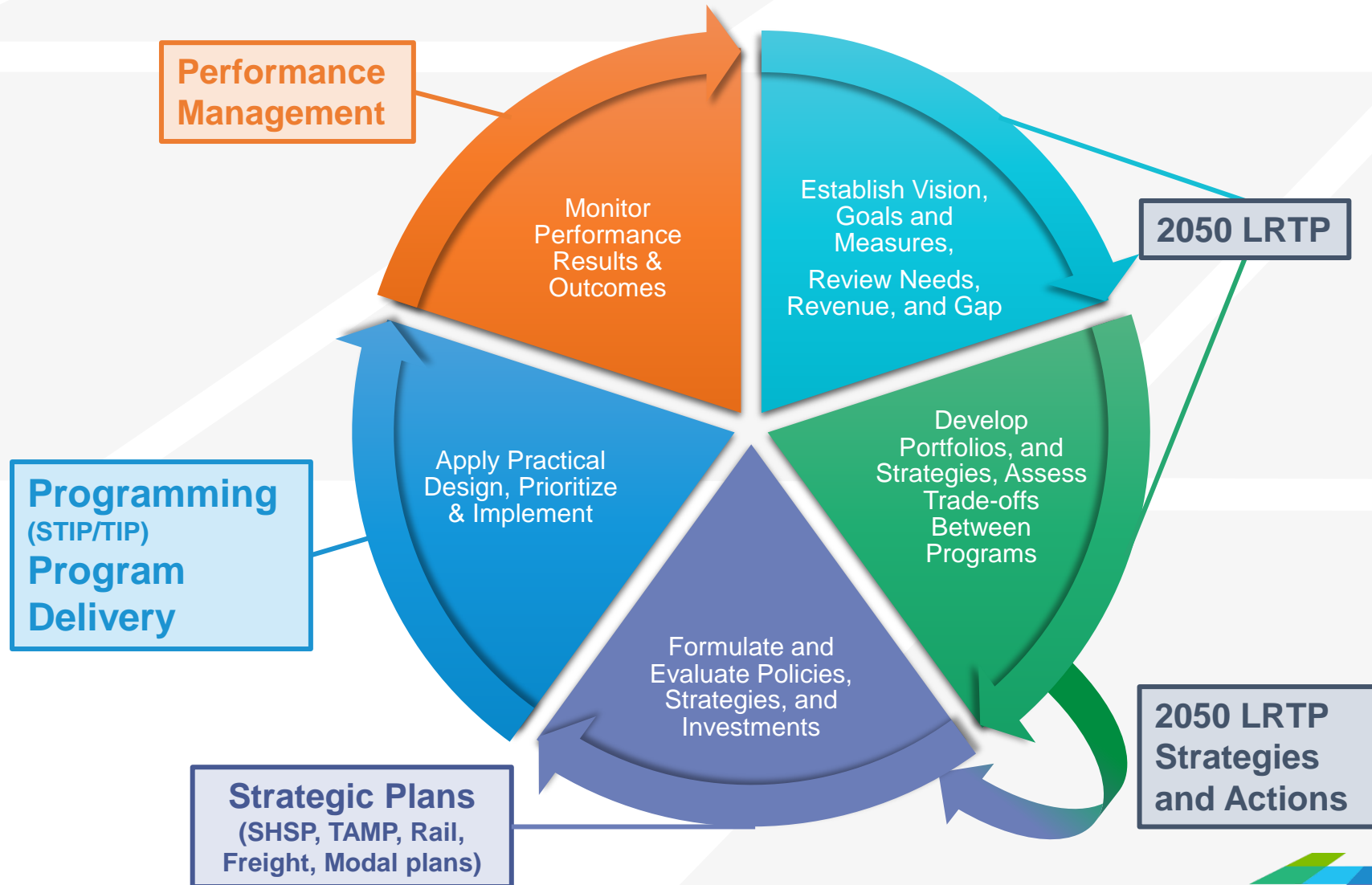
Develop a Rail Crossing Safety Plan

Leverage Broadband to promote prolonged stays for remote workers and visitors in remote recreational areas.

Nearly 40 combined S1, S2 Actions to Implement by 2030

# Plan Implementation

Where Do Actions Fit in the Planning-Programming-Performance Cycle?



# Plan Implementation

How Do the Actions Help Address the Need vs. Revenue Gap?

## 2050 LRTP

Actions focus on tactical steps that WVDOT can take to create opportunities for more efficient and data-driven investments to help mitigate the gap

**LRTP provides direction on activities to promote more efficient investments, helping to reduce costs and increase benefits**



## Modal Plans and Programs

(TAMP, HSIP, STIP, etc..)

Existing and future plans and programs develop specific investment programs and optional investment allocations to support efficient implementation

**Modal plans and programs detail specific resource allocations and investments**



# Plan Implementation

How Do the Actions Address Performance Goals?

## 2050 LRTP

Actions help create the decision-making environment and spur existing and current programs and initiatives to help meet performance targets

**LRTP provides direction on resource options to achieve performance targets**



## Modal Plans and Programs

(TAMP, HSIP, STIP, etc..)

Existing and future plans and programs develop specific investment programs and optional investment allocations to support attainment of performance targets

**Modal plans and programs detail steps and resources on how to achieve performance targets**



# Priority Actions



# Disclaimer

- ➔ **Draft Priority actions** require close evaluation (per emails originally sent to SMEs over the past two weeks, and the action packet sent on June 4<sup>th</sup>)
- ➔ **Today is not your last chance** for input, but we need your feedback by June 11 to stay on schedule
- ➔ **Please complete the survey forwarded on June 4th** so that we have a full picture of stakeholder perspectives on these actions to share with Leadership

<https://survey.alchemer.com/s3/6374832/WVDOT-2050-LRTP-Actions-Review>

# Context

- **Priority actions** represent the nexus of priority, benefits and readiness
  - » **S1 – highest priority** and focus for implementation over next 3-5 years
  - » **S2 – high priority**, with longer timing for implementation (next 10 years)
  
- **Long Term actions**
  - » **(LT) – remain a priority** but require more time, resources, partnerships to enact (next 10+ years)

The LRTP team developed these initial priority assignments based on professional judgement and SME input to date

Ultimately...the Plan should include priorities consistent with stakeholder direction

**So...we need your input**



# Context

- **Plan implementation** will focus first on **S1** actions
  - » Ready for implementation in the next 5 years
  - » Many actions represent continuation or expansion of existing programs, policies, processes
  - » Different WVDOT Divisions are involved, as are Federal, state, regional and local partners
  - » Some priority actions will require new resources and commitments, these actions address statewide goals (trade-off decisions and resource planning)
  - » Actions are related to one another, requiring coordination among leads to leverage resources

# Highway Preservation Portfolio Strategies



Implement the spectrum of asset management principles to preserve and comprehensively improve bridge conditions.



Implement the spectrum of asset management principles to preserve and comprehensively improve pavement conditions.



Plan for and deliver equitable and balanced asset management principles on non-NHS facilities, balancing urban and rural needs to foster local and regional commerce, tourism, and community access.



Ensure DOH District and county support facilities, vehicles, and other assets are in operating condition, maintain and improve roadside assets and enhance quality and capacity of travel plazas and welcome centers.



Protect assets and maintain stormwater facilities, coordinate with emergency management partners and build capacity to respond quickly to emergency related events.



# Highest Priority Actions

## PRESERVATION – S1

Strategy	Action	Lead/Support
Implement the spectrum of asset management principles to preserve and comprehensively improve bridge conditions.	<b>Integrate BMS into existing LRS System</b> – reduce error reduction, enhance system synchronization.	<ul style="list-style-type: none"> <li>• Performance Management</li> <li>• Bridge</li> <li>• Strategic Systems and Technology Division</li> </ul>
Implement the spectrum of asset management principles to preserve and comprehensively improve pavement conditions.	<b>Integrate PMS into existing LRS System</b> – reduce error reduction, enhance system synchronization.	<ul style="list-style-type: none"> <li>• Performance Management</li> <li>• Pavement</li> <li>• Strategic Systems and Technology Division</li> </ul>
	<b>Maintain Funding</b> – Maintain current projected funding levels to keep current asset performance levels.	<ul style="list-style-type: none"> <li>• Budget Office</li> <li>• Performance Management</li> <li>• Pavement</li> </ul>

# Highest Priority Actions

## PRESERVATION – S1

Strategy	Action	Lead/Support
<p>Plan for and deliver equitable and balanced asset management principles on non-NHS facilities, balancing urban and rural needs to foster local and regional commerce, tourism, and community access.</p>	<p><b>Improve and increase communication between Districts and Central Office</b> – leverage best practices, data sharing and lessons learned among Districts and Central Office.</p>	<ul style="list-style-type: none"> <li>• Performance Management</li> <li>• Operations</li> <li>• District Offices</li> </ul>
<p>Protect at risk assets and maintain stormwater facilities, coordinate with emergency management partners and respond quickly to emergency related events.</p>	<p><b>Research and deploy drainage (BMPs) and green infrastructure technologies</b> – proactive deployment of additional BMPs and sustainable design will improve resiliency.</p>	<ul style="list-style-type: none"> <li>• Technical Services</li> <li>• Operations</li> </ul>

# High Priority Actions

## PRESERVATION – S2

Strategy	Action	Lead/Support
Implement the spectrum of asset management principles to preserve and comprehensively improve pavement conditions.	<b>Fully implement automated/semi-automated pavement data collection</b> – expand WV DOH Pavement Data Viewer vehicles and Asset Inventory for dTIMS.	<ul style="list-style-type: none"> <li>• Operations</li> <li>• Performance Management</li> </ul>
Protect at risk assets and maintain stormwater facilities, coordinate with emergency management partners and respond quickly to emergency related events.	<b>Review data to identify high risk areas relating to slips</b> – conduct vulnerability assessment of highway assets based on past emergency/flood data.	<ul style="list-style-type: none"> <li>• Operations</li> <li>• Performance Management</li> </ul>

# Highway Performance Portfolio Strategies



Expand safety awareness campaigns which target changes to driving behavior, decision making and strengthen state, local law enforcement initiatives.



Deploy more countermeasures in the form of rumble strips, guardrails, retroreflective pavement markings and other roadway features which mitigate and prevent fatalities.



Deploy localized roadway design improvements and enhancements which facilitate safer driving conditions.



Expand statewide coverage of Dynamic Message Signs, CCTV, Road Weather Information Systems (RWIS) along Interstates, ADHS, CRTS, and high priority WV routes.



Enhance operational, design, and access management features of high priority statewide and regional WV routes to overcome bottlenecks and optimize highway travel efficiency.



# Highest Priority Actions

## PERFORMANCE – S1

Strategy	Action	Lead/Support
Expand safety awareness campaigns which target changes to driving behavior, decision making and strengthen state, local law enforcement initiatives.	<b>Expand use of communication tools, techniques</b> – more social media ads (geotargeting demographic groups), educational toolkits to reach next gen drivers of making good decisions.	<ul style="list-style-type: none"> <li>• Communications Office</li> <li>• Governor Highway Safety Patrol</li> </ul>
	<b>Streamline traffic records</b> – invest resources to allow law enforcement officials to send crash reports, citations and electronically to enhance data management and communication.	<ul style="list-style-type: none"> <li>• Governor Highway Safety Patrol</li> <li>• WV State Policy and Local Law Enforcement</li> </ul>
Deploy more countermeasures in the form of rumble strips, guardrails, retroreflective pavement markings and other roadway features which mitigate and prevent fatalities.	<b>Expand use, type of countermeasures</b> – rumble strips, retroreflective pavement markings, clear zones/fixed object removal.	<ul style="list-style-type: none"> <li>• Traffic Engineering Division</li> <li>• District Offices</li> </ul>

# High Priority Actions

## PERFORMANCE – S2

Strategy	Action	Lead/Support
Expand statewide coverage of Dynamic Message Signs, CCTV, Road Weather Information Systems (RWIS) along Interstates, ADHS, CRTS, and high priority WV routes.	<b>Develop strategy and schedule to maintain up-to-date software/hardware across ITS</b> – based on immediate need or as new technology comes online, including TMC.	<ul style="list-style-type: none"> <li>• Traffic Engineering Division</li> <li>• WV Office of Technology</li> </ul>
	<b>Examine strategy to further integrate or coordinate software/hardware</b> – between DOH TMC and WV Turnpike TTC systems for future procurement cost savings.	<ul style="list-style-type: none"> <li>• Traffic Engineering Division</li> <li>• WV Office of Technology</li> </ul>
	<b>Update DOH Emergency Preparedness, Response and Recover Plan (2016)</b> – update incident management policies with WV Turnpike during major events.	<ul style="list-style-type: none"> <li>• Traffic Engineering</li> <li>• Operations</li> </ul>
Enhance operational, design, and access management features of high priority statewide and regional WV routes to overcome bottlenecks and optimize highway travel efficiency.	<b>Initiative to address highest priority MPO LRTP intersection and corridor improvements</b> – low cost/high benefit operational improvements.	<ul style="list-style-type: none"> <li>• Traffic Engineering Division</li> <li>• District Offices</li> <li>• WV Association of MPOs</li> </ul>

# Innovation Portfolio Strategies



Invest in asset condition and performance tools to better inform decision-makers on future investment needs related to existing infrastructure or the potential need for future projects.



Expand coordination activities with State Agencies, MPOs, cities, and counties using new meeting technologies. Set up regular coordination meetings with partners to review current performance of assets, potential future needs, current/future planning studies.



Support legislation that allows for the testing and deployment of automated vehicles or other travel modes. Invest in infrastructure projects that prepare for and support future technologies and vehicles.



Develop a statewide mobility plan that coordinates the multiple transit agency schedules and routes across the state to better inform the public of transit options available to them.



Alternative Project Delivery and system management strategies create opportunities for WVDOT to bundle investments, utilize new construction methods and materials, and leverage new policies and programs to reduce costs.

# Highest Priority Actions

## INNOVATION – S1

Strategy	Action	Lead/Support
<p>Invest in asset condition and performance tools to better inform decision-makers on future investment needs related to existing infrastructure or the potential need for future projects.</p>	<p><b>Pilot longer lasting, durable asset construction materials and methods</b> – research bridge structures (ex. Fiber-reinforced polymers) &amp; asphalt, concrete mix designs for harsher weather conditions.</p>	<ul style="list-style-type: none"> <li>Alternative Project Delivery</li> </ul>
<p>Expand coordination activities with State Agencies, MPOs, cities, and counties to leverage resources and initiatives and proactively engage with private sector and institutional partners on research and funding opportunities.</p>	<p><b>Establish more communication of planning, projects, major DOH initiatives or other “need to know” information</b> – target internal DOH staff and MPOs, RPDCs, state agencies and other key partners, stakeholders.</p>	<ul style="list-style-type: none"> <li>Communications Office</li> </ul>

# Highest Priority Actions

## INNOVATION – S1

Strategy	Action	Lead/Support
<p>Develop a statewide mobility plan and program that coordinates transit and other mobility services schedules, access, and integrated investments and establishes more structured travel demand management programs, including telework programs.</p>	<p><b>Develop Statewide Coordinated Transit Plan</b> – initiate statewide transit systems plan to coordinate state, local transit service needs, and opportunity including post pandemic shift to telework and travel demand management.</p>	<ul style="list-style-type: none"> <li>• Division of Public Transit</li> </ul>
<p>Alternative Project Delivery and system management strategies create opportunities for WVDOT to bundle investments, utilize new construction methods and materials, and leverage new policies and programs to reduce costs.</p>	<p><b>Pursue Federal grant and financing opportunities, including the RAISE and TIFIA programs.</b></p>	<ul style="list-style-type: none"> <li>• TBD</li> </ul>

# High Priority Actions

## INNOVATION – S2

Strategy	Action	Lead/Support
Invest in asset condition and performance tools to better inform decision-makers on future investment needs related to existing infrastructure or the potential need for future projects.	<b>Set TAMP on 4-year update cycle in sync with federally required mid-performance period review</b> – incorporate scenario planning in next TAMP update to identify investment levels to address targets under varying “what if” conditions – ex. events, funding shortfalls, resource infusion.	<ul style="list-style-type: none"> <li>• Operations</li> <li>• Performance Management</li> </ul>
Support legislation that allows for the testing and deployment of connected and autonomous vehicles or other new travel modes and invest in infrastructure projects that prepare for and support new infrastructure and vehicle technologies.	<b>Track and annually report progress of Dig Once Policy implementation</b> – communicate miles of conduit installed by project, District and region.	<ul style="list-style-type: none"> <li>• Alternative Project Delivery</li> <li>• ROW, Utility Unit</li> </ul>
	<b>Leverage Federal investment in Broadband</b> – continue recent efforts such as the USDA ReConnect Program and partner to implement grants.	<ul style="list-style-type: none"> <li>• Alternative Project Delivery</li> <li>• WV Department of Economic Development, Office of Broadband</li> </ul>
	<b>Participate in connected/automated vehicle (CAV) pilots</b> – join National Highway Traffic Safety Administration (NHTSA) TEST pilot initiative, increase coordination with MD, OH, VA.	<ul style="list-style-type: none"> <li>• Alternative Project Delivery</li> <li>• Traffic Engineering Division</li> </ul>



# High Priority Actions

## INNOVATION – S2

Strategy	Action	Lead/Support
<p>Develop a statewide mobility plan and program that coordinates transit and other mobility services schedules, access, and integrated investments and establishes more structured travel demand management programs, including telework programs.</p>	<p><b>Develop and maintain GTFS and GTFS-flex for all fixed-route and demand-responsive transit providers in WV</b> – use flex technology to highlight multimodal linkages which enhance services and programs in currently served WV counties and to reach 18 unserved counties.</p> <p><i>Note: flex implementation makes transit easily discoverable and available in trip planners.</i></p>	<ul style="list-style-type: none"> <li>• Division of Public Transit</li> </ul>
	<p><b>Support local transit agencies by providing support for innovative pilot projects</b> – microtransit, real-time information, alternative fare payment methods, detailed demand data, and fleet electrification.</p>	<ul style="list-style-type: none"> <li>• Division of Public Transit</li> </ul>
<p>Alternative Project Delivery and system management strategies create opportunities for WVDOT to bundle investments, utilize new construction methods and materials, and leverage new policies and programs to reduce costs.</p>	<p><b>Investigate additional alternative delivery methods</b> – track progress and benefits, report Best Value cost, time savings.</p>	<ul style="list-style-type: none"> <li>• Alternative Project Delivery</li> </ul>

# Diversify Portfolio Strategies



Integrate programs and strategies across complete streets, regional trails, rail trails, on-road bicycle systems, and sidewalk and ADA compliance to address system gaps and create a statewide network serving key destinations.



Modernize and market commercial service airports and improve access to support new service and expand opportunities for general aviation through capacity and safety improvements and testing and expansion of facilities for unmanned aerial systems.



Ensure assets remain in working condition, improve passenger facilities and rider safety, and expand service and implement new service types (including more flexible systems, coordination with mobility-as-a-service providers, paratransit, and intercity services).



Enhance passenger rail service and reliability, improve access to key destinations, and integrate service with other transportation modes, including transit.



Collaborate with Class I and shortline railroads to improve rail crossings, address capacity bottlenecks, and provide new and improved access points to existing and new industries.



# Highest Priority Actions

## DIVERSIFY – S1

Strategy	Action	Lead/Support
<p>Integrate programs and strategies across complete streets, regional trails, rail trails, on-road bicycle systems, and sidewalk and ADA compliance to address system gaps and create a statewide network serving key destinations.</p>	<p><b>Develop Sidewalk Infrastructure and ADA Compliance</b> – expand universal accessibility by improving pedestrian infrastructure networks and providing ADA compliant safety features.</p>	<ul style="list-style-type: none"> <li>• WVDOH, Bike/Ped</li> <li>• MPOs</li> </ul>
<p>Collaborate with Class 1 and shortline railroads to improve rail crossings, address capacity bottlenecks, and provide new and improved access points to existing and new industries.</p>	<p><b>Grade Crossing Improvements</b> – develop a Rail Crossing Safety Plan to prioritize grade crossing improvements and improve safety measures.</p>	<ul style="list-style-type: none"> <li>• WVSRA</li> <li>• WVDOH, Traffic Engineering</li> <li>• Class 1, Shortline Operators</li> </ul>

# High Priority Actions

## DIVERSIFY – S2

Strategy	Action	Lead/Support
Integrate programs and strategies across complete streets, regional trails, rail trails, on-road bicycle systems, and sidewalk and ADA compliance to address system gaps and create a statewide network serving key destinations.	<b>Invest in Cross State Signed Bike Routes</b> – implement signed bike routes and shared lane markings statewide to enhance connectivity to key destinations & promote with Tourism Office.	<ul style="list-style-type: none"> <li>• WVDOH, Bike/Ped</li> <li>• MPOs</li> <li>• WV Tourism Office</li> </ul>
Modernize and market commercial service airports and improve access to support new service and expand opportunities for general aviation through capacity and safety improvements and testing and expansion of facilities for unmanned aerial systems (drones).	<b>Improve Modal Connections to Airports</b> – improve connections to other modes, increase accessibility for residents and tourists.	<ul style="list-style-type: none"> <li>• WV Aeronautics Commission</li> <li>• Amtrak</li> <li>• WV Public Transit</li> </ul>
	<b>Cross Promote WV Airports</b> – promote airport usage within WV Tourism materials.	<ul style="list-style-type: none"> <li>• WV Aeronautics Commission</li> <li>• WV Office of Tourism</li> </ul>
Ensure assets remain in working condition, improve passenger facilities and rider safety, and expand service and implement new service types (including more flexible systems, coordination with mobility-as-a-service providers, paratransit, and intercity services).	<b>Fleet Upgrade and Replacement</b> – begin replacing fleet with electric buses, reduce dependency on non-renewable fuels sources.	<ul style="list-style-type: none"> <li>• WVDOT, Division of Public Transit</li> <li>• Local Transit Authorities</li> </ul>
	<b>Expand Park and Ride Lots</b> – enhance bus services by promoting and expanding Park and Ride Lots to support commuter travel and coordinated with intercity bus operators and access to existing and future routes.	<ul style="list-style-type: none"> <li>• WVDOT, Division of Public Transit</li> <li>• Local Transit Authorities</li> </ul>



# Transportation Access Portfolio Strategies



Ensure rural roads are accessible, reliable, & adequately maintained to provide vital links across developed as well as open parts of the state for all residents & visitors.



Leverage technology to expand education opportunities especially in underserved communities and maintain existing systems enabling continued innovation.



Provide equal access to affordable medical care & healthy food choices across developed & rural communities, targeting low-income, elderly, mobility impaired groups.



# Highest Priority Actions – ACCESS – S1

Strategy	Action	Lead/Support
<p>Ensure rural roads are accessible, reliable, &amp; adequately maintained to provide vital links across developed as well as open parts of the state for all residents &amp; visitors.</p>	<p><b>Promote Outdoor Tourism</b> – advertise post-pandemic tourism using WV’s transportation assets and natural beauty to promote recreation and wellness activities through camping, hiking, bicycle, motorcycle and scenic byway road trips.</p>	<ul style="list-style-type: none"> <li>• WVDOT</li> <li>• WVDNR</li> <li>• WV Tourism Office</li> </ul>
	<p><b>Accessing &amp; Residing Near Rural Recreation</b> – focus on rural road upkeep &amp; access to state historic/recreational sites, Leverage Broadband to promote prolonged stays for remote workers and visitors in remote recreational areas.</p>	<ul style="list-style-type: none"> <li>• WVDOT</li> <li>• WVDNR</li> <li>• WV Tourism Office</li> </ul>

# High Priority Actions

## ACCESS – S2

Strategy	Action	Lead/Support
<p>Ensure rural roads are accessible, reliable, &amp; adequately maintained to provide vital links across developed as well as open parts of the state for all residents &amp; visitors.</p>	<p><b>Driver Education &amp; Travel Conditions</b> – spread Driver Education to Welcome Centers &amp; Travel Oasis along major WV roadways &amp; virtually across social media utilizing Broadband to alert drivers of slower travel speeds &amp; longer travel time throughout WV’s circuitous mountainous roads.</p>	<ul style="list-style-type: none"> <li>• WVDOT, DMV</li> <li>• WVDNR</li> <li>• WV Tourism Office</li> </ul>
	<p><b>Leverage Broadband Expansion &amp; Technology</b> – utilize corridor dynamic messaging signs with social media blasts keeps travelers connected throughout rural areas &amp; informs visitors of welcome deviations to encourage attending local seasonal attractions.</p>	<ul style="list-style-type: none"> <li>• WVDOT</li> <li>• WVDNR</li> <li>• WV Tourism Office</li> </ul>

# High Priority Actions

## ACCESS – S2

Strategy	Action	Lead/Support
Provide equal access to affordable medical care & healthy food choices across developed & rural communities, targeting low-income, elderly, mobility impaired groups.	<b>Food Mapping</b> – identify citizens trapped in food deserts isolated from healthy food options & map public transit resources with service frequencies to assist providing reliable grocery trips.	<ul style="list-style-type: none"> <li>• WVDOT</li> <li>• WV Division of Veterans</li> <li>• WV DHHR</li> <li>• WV Dept. of Agriculture</li> </ul>
	<b>Streamline Mobility Needs</b> – employ shared ride technology through public and/or commercial transportation (such as FindMyRidePA) to connect isolated, mobility impaired groups to essential health services.	<ul style="list-style-type: none"> <li>• WVDOT</li> <li>• WV DHHR</li> <li>• Commercial partners</li> </ul>
	<b>Enhance Medical Transportation Programming</b> – extend coverage of Transportation to Care & MARP statewide to ensure all citizens in-need of treatment & medicines receive sufficient care & resources.	<ul style="list-style-type: none"> <li>• WVDOT</li> <li>• WV DHHR</li> </ul>

# Next Steps

# 2050 LRTP

## Next Steps

- Compile input from:
  - SME actions review
  - Round 4 Stakeholder
  - Meetings Actions survey
- Conduct two Virtual Public Meetings (June 15)
- Finalize actions within the Implementation Plan
- Develop LRTP Plan for public review



**By mid June...** Draft Implementation Actions, System Performance Report



**June...** SME interviews, Stakeholder input to Actions



**June...** Public Outreach



**By mid June...** Implementation Plan



**By end of June...** release 2050 LRTP Plan for public comment

<https://survey.alchemer.com/s3/6374832/WVDOT-2050-LRTP-Actions-Review>

