FY 2022-2025
TRANSPORTATION IMPROVEMENT PROGRAM

December 2021

CHARLESTON, WV
METROPOLITAN TRANSPORTATION PLANNING AREA

Regional Intergovernmental Council
315 D Street
South Charleston, WV 25303

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Introduction

As a condition of receiving Federal capital or operating assistance for transportation planning, improvements or operations, the Charleston, WV urbanized area must maintain a continuing, cooperative, and comprehensive transportation planning process that results in plans and programs consistent with the comprehensively planned development of the urbanized area. The Transportation Improvement Program (TIP) is a multi-modal transportation document required by the US Department of Transportation to fulfill the objectives of the Metropolitan Transportation Planning Process. For the purposes of conducting regional comprehensive transportation planning and implementing transportation improvements, the Charleston, WV Metropolitan Planning Area includes all of Kanawha and Putnam counties.

The FY 2022-2025 TIP for the Charleston, West Virginia Metropolitan Area includes transit and highway improvement or maintenance projects to be implemented in FY 2022 through FY 2025. The fiscal year followed by the State of West Virginia and the Regional Intergovernmental Council begins on July 1 and ends on June 30. The TIP is prepared in cooperation with the US Department of Transportation's Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the West Virginia Department of Transportation (WVDOT), the Kanawha Valley Regional Transportation Authority (KVRTA), and local communities.

Federal code regarding planning and implementation of federally funded transportation projects includes provisions regarding the preparation of the TIP and the program's contents. These provisions include project selection, project prioritization, a financial plan which is to demonstrate that funding can reasonably be expected to be available, and an opportunity for public comment prior to approval.

RIC Planning Area

The Region 3 Planning and Development Council, known as the B-C-K-P Regional Intergovernmental Council, (RIC) consists of Boone, Clay, Kanawha and Putnam counties and its municipalities and citizens. On December 5, 1973, the RIC assumed responsibility for coordinating transportation planning in Region 3, with the understanding that project inclusion on the TIP need only occur for the urbanized planning area of Kanawha and Putnam counties.

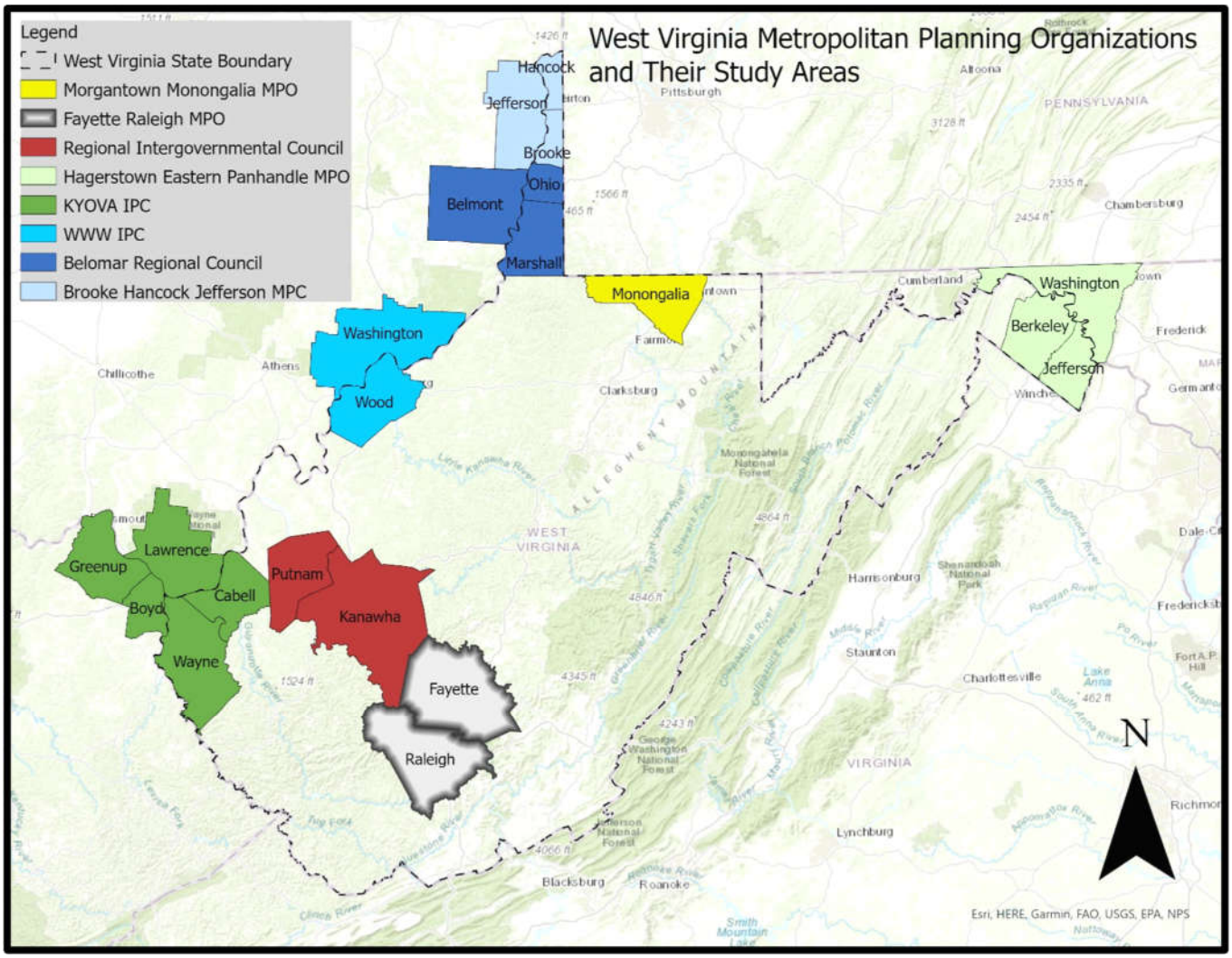
Titles 23 and 49 of the United States Code (23 U.S.C. 134 (k) (I) (A) and 49 U.S.C. 5303 (k) (I) (A) requires the Secretary of Transportation to designate urbanized areas over 200,000 population as Transportation Management Areas (TMA). It can also be designated by special request from the state Governor or by the designated MPO for the urbanized area.

On July 16, 2012, the U.S. Census Bureau released its urbanized area delineations from the 2010 Census. The Huntington, WV-KY-OH urbanized area exceeded the 200,000-population threshold signifying a new TMA which included portions of Cabell,

Putnam, and Wayne counties in WV, portions of Boyd and Greenup counties in KY, and part of Lawrence County, OH.

The KYOVA Interstate Planning Commission began to oversee the transportation planning activities in the Huntington, WV-KY-OH TMA on July 1, 2013 with the exception of the TMA portion in Putnam County, WV. The Regional Intergovernmental Council (RIC) Metropolitan Planning Organization located in South Charleston, WV retains all transportation planning responsibility for the Putnam County portion of the Huntington, WV-KY-OH TMA.

Below is a map of all the metropolitan planning organizations in the state of West Virginia and their study areas.



Purpose

The primary purpose of RIC's Transportation Improvement Program (TIP) is to provide a mechanism for enabling local input into the use of federal funds for surface transportation projects, determine regional transportation priorities and demonstrate a short-range transportation vision for the region. Metropolitan Planning Organizations prepare a fiscally constrained document that promotes reinvestment in the existing infrastructure, emphasizes public involvement in the transportation planning process, introduces new transportation technologies, promotes intermodal connections, suggests and introduces alternative funding strategies, and offers a pragmatic approach to new construction projects. All TIP projects are consistent with RIC's 2050 Metropolitan Transportation Plan (MTP). Since this plan is fiscally constrained all projects shown are anticipated to be authorized over the selected years of the TIP.

TIP Content

Improvements to be included in the TIP originate from WVDOT project lists, KVRTA's capital program, and RIC's Metropolitan Transportation Plan (MTP). These projects consist of highway, bikeway, transportation alternative projects, transit operating and capital projects. All projects that receive full or partial federal funding are in the TIP. Large regionally significant state or locally funded projects may also be found in the TIP. The complete project listing for 2022-2025 can be found in Section 2 of this document. For informational purposes, 2021 projects are included following the project listing.

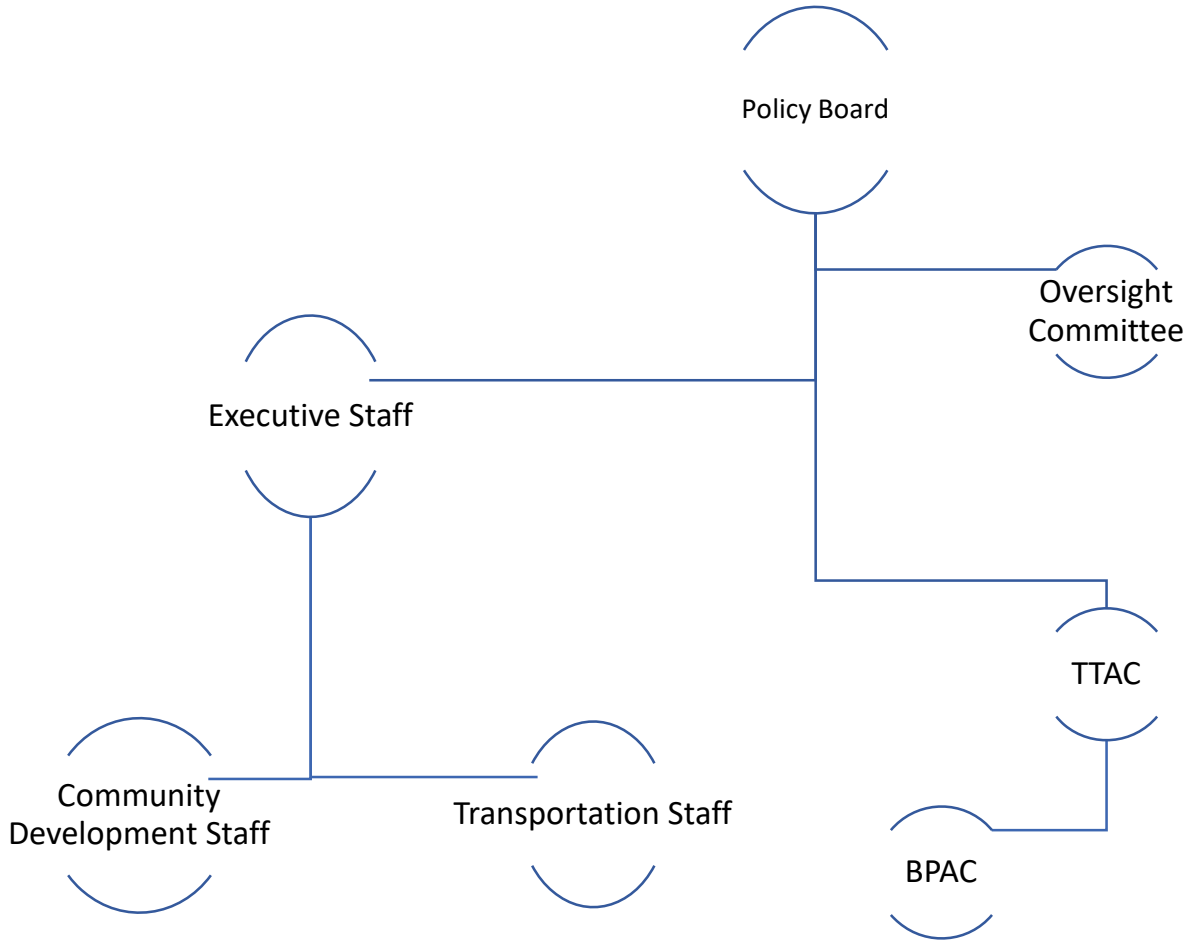
TIP Process and RIC Organization

Projects included in RIC's FY 2022-2025 TIP are endorsed by the West Virginia Department of Transportation and approved by various committees providing input into RIC's decision-making process. The Transportation Technical Advisory Committee (TTAC) monitors the activities of RIC's transportation planning staff and reviews the technical procedures and standards for conducting the process. Members of the public, as well as private transit operators are also given an opportunity to provide input into the TIP. RIC details public involvement procedures in its Public Participation Plan.

Recommendations from the TTAC regarding the TIP are approved or disapproved for presentation to the Regional Intergovernmental Council's Policy Board, which is responsible for the overall policy, guidance, and direction for the Metropolitan Transportation Planning Process in the Charleston, West Virginia Urbanized Area. The policy board's voting membership consists of the mayors and county commissioners of each of the municipalities and counties that comprise the total RIC Planning Area. In addition, the voting membership includes one citizen from each county and the City of Charleston, two minority interest representatives, citizens appointed by the RIC policy board, and one member each from the KVRTA and the WVDOT. The members approve or disapprove any projects presented to them and have the authority to propose any projects they believe should be included in the TIP. They can also recommend a change

in priorities for the projects presented for their approval. However, as mentioned above any projects submitted for approval are subject to endorsement by the West Virginia Department of Transportation. The RIC Policy Board makes the final decision on the document to be submitted to the West Virginia Department of Transportation for their final review. Other supplemental committees to RIC operations are the Oversight Committee and the Bicycle and Pedestrian Advisory Committee (BPAC). The Oversight Committee governs staff policies, approves large purchases, and makes recommendations to the Executive Staff and Policy Board. The BPAC, a subcommittee of the TTAC, oversees the implementation of and recommends changes to the Kanawha-Putnam Bicycle and Pedestrian Plan. Those changes likewise to the TIP, must be approved by the TTAC and then the Policy Board.

Below is an illustration of the Regional Intergovernmental Council's Organizational Chart:



TIP Amendments/Administrative Adjustments
Amendments to the TIP are made quarterly. An amendment to the TIP requires compliance with 23 CFR 450 including the public involvement procedures, air quality conformity and fiscal constraint.

In the event of a minor project change in the TIP, an administrative adjustment may be performed. The following actions are eligible as administrative adjustments to the TIP:

- A minor change in project description that does not change the Air Quality conformity finding or change the project scope; or
- Shifting programmed funds between projects (i.e., funding sources and projects already identified in the TIP); or
- Moving programmed projects from year to year within an approved TIP, except those that cross Air Quality horizon years; or
- A cost change to a groupable project that is less than $10,000,000 and doesn't change the groupable bucket size by more than 10%; or
- A change to a project that is considered groupable as long as the change does not make it not groupable.

Administrative adjustments shall be tracked by RIC staff and made available to appropriate committees through electronic communication and/or a written memorandum. Since administrative adjustments do not require RIC Policy Board approval, no notice is required to be given to the RIC Policy Board or the public prior to approval. They shall, however, be presented to the TTAC and RIC Policy Board for review and comment.

Groupable Projects
The West Virginia Association of Metropolitan Planning Organizations (WVAMPO) officers in coordination with the West Virginia Department of Transportation have developed a system of Groupable and Non-groupable projects for the TIP and the STIP. Groupable projects will not require approval from the MPO Policy Boards nor require Air Quality analysis since they do not add capacity to the existing highway system. The absence of these requirements will lessen the administrative burden on both the MPO and the WVDOT.

Projects with a phase cost larger than $10,000,000, safety projects, new signal projects, new travel lane additions, new roads or new bridges, expansion projects that add capacity, projects that affect air quality, and regionally significant non-federal aid projects are considered not groupable. All other projects will be considered groupable under the STIP/TIP procedures. The TTAC will continue to review changes to the TIP, but no formal approval by the TTAC or Policy Board will be required. Any project that

adds capacity, or is regionally significant, will be part of the Non-Groupable Project list and will require approval from the MPO Policy Board and will follow the typical TIP amendment schedule detailed on page 15.

A major change to a groupable project will require an amendment to the STIP/TIP. It is defined as follows:

- Adding, deleting or moving across federal fiscal years a number of projects with a sum cost greater than 10% of the STIP bucket size, which is found in the STIP document; or
- A major change of project scope, such as a change that is inconsistent with the National Environmental Policy Act (NEPA) documentation or will change the NEPA determination, or a change that affects the approved Air Quality conformity finding; examples include changing the number of through lanes, adding/deleting non-motorized facilities, changing mode (FTA – rolling stock or facility type), changing capital category (FTA), and may include changing termini which changes the project from groupable to not groupable; or
- Any change requiring a new regional air quality conformity finding which changes the project from groupable to not groupable; or
- A greater than $10,000,000 cost increase or cost decrease in a phase of a project listed in the current STIP/TIP which changes the project from groupable to not groupable.

For non-groupable projects, an amendment is any major change in the approved TIP. It is defined as follows:

- Adding or deleting any safety project; or
- Adding or deleting any project that adds new traffic signals; or
- Adding or deleting any project that affects air quality; or
- Adding or deleting any project that changes traffic capacity of a road or bridge; or
- Adding or deleting any expansion project; or
- Adding or deleting any regionally significant, non-federal aid project; or
- Major change in scope of work or cost changes greater than $2,000,000 or 10% of the project cost, whichever is greater.

Planning Requirements and Statutory Provisions

1. Annual listing of projects (23U.S.C. 135(g)(5); 49 U.S.C. 5303(g)(5):
"An annual listing of projects for which Federal funds have been obligated in the preceding year shall be published or otherwise made available by the metropolitan planning organization for public review. The listing shall be consistent with categories identified in the Transportation Improvement Program."
2. Sharing of revenue estimates for TIP's and Plan's (23 U.S.C. 134 (i)(2)(E)(iii) and (23

U.S.C.)134(j)(1)(C); 49 U.S.C. 5303(i)(2)(E)(iii) and (j)(1)(C)
"For the purpose of developing the transportation plan, the metropolitan planning organization, transit operator, and State shall cooperatively develop estimates of funds that will be available to support plan implementation."
"For the purpose of developing the TIP, the metropolitan planning organization, public transportation agency, and the State shall cooperatively develop estimates of funds that are reasonably expected to be available to support program implementation".
3. State consultation with local officials in non-metropolitan areas (23 U.S.C. 135 (f)(2)(B)(i)(g)(2)(B)(i); 49 U.S.C. 5304(f)(2)(B)(i), (g)(2)(B)(i):
"With respect to non-metropolitan areas, the statewide transportation plan shall be developed in cooperation with affected non-metropolitan officials with responsibility for transportation or, if applicable, through regional planning organizations…"
4. Consultation with transit users and freight shippers and service providers (23 U.S.C. 134(i)(6)(A) and 49 U.S.C. 5303(i)(6)(A):
"Each metropolitan planning organization shall provide citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan."
5. Federal planning finding for STIP (23 U.S.C. 135(g)(8);49 U.S.C. 5304(g)(8):
"A finding shall be made by the Secretary at least every 4 years that the transportation planning process through which statewide transportation plans and programs are developed is consistent with this section 134."

Performance-Based Planning and Programming
State Department of Transportation and Metropolitan Planning Organization agencies are required to establish performance targets for the national performance areas pertaining to safety, infrastructure conditions, and system performance.

Title 23 of United States Code Chapter 1 Section 150 guides the general requirements and national goals for regional transportation agencies, such as the Regional Intergovernmental Council (RIC), to make decisions based on the development and monitoring of performance-based data. The national goals of the Federal-aid program are:

1) Safety
2) Infrastructure condition
3) Congestion reduction
4) System reliability
5) Freight movement and economic vitality
6) Environmental sustainability
7) Reduced project delivery delays

In summary, the code requires state DOTs and MPOs to establish and report on performance targets that allow decision makers to:

- Assess the National Highway Performance Program with measures that evaluate:
    - the condition of pavements on the Interstate System;
    - the condition of pavements on the National Highway System;
    - the condition of bridges on the National Highway System;
    - the performance of the Interstate System; and
    - the performance of the National Highway System.
- Assess the Highway Safety Improvement Program with measures that evaluate:
    - serious injuries and fatalities per vehicle mile traveled; and
    - the number of motorized and non-motorized serious injuries and fatalities.
- Assess the Congestion Mitigation and Air Quality Program with measures that evaluate:
    - traffic congestion; and
    - on-road mobile source emissions.
- Assess freight movement on the Interstate System.

PM1 - Safety

In compliance, the RIC policy board adopted the WVDOTs performance targets on the following measures for the Highway Safety Improvement Program (PM 1) on December 14th, 2017, on December 13th, 2018, December 12^{1h} 2019, and December 10th, 2020:

- Number of fatalities;
- Number of serious injuries;
- Fatality rate per hundred million vehicle miles traveled (HMVMT);
- Serious injury rate per HMVMT;
- Number of non-motorized fatalities and serious injuries.

PM2 – Pavement and Bridge

Additionally, the RIC policy board adopted the WVDOT's performance targets on the following measures for Pavement and Bridge Condition Performance (PM 2) on June 14, 2018 and December 10th 2020:

- Assess the condition of pavements on the Interstate System and on the Non-Interstate National Highway System (NHS).
- Assess the condition of bridges carrying NHS.

PM3 – System Performance, Freight, Congestion, and Air Quality

The RIC policy board adopted the WVDOT's performance targets on the following measures for System Performance, Freight and CMAQ (PM 3) on June 14, 2018 and December 10th 2020:

- Assess the performance of the Interstate and Non-Interstate NHS.
- Assess freight movement on the Interstate System.
- Assess traffic congestion and on-road mobile source emissions for carrying out the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

Transit Performance Measures

The Kanawha Valley Regional Transportation Authority (KVRTA) is responsible for state of good repair (SGR) and safety performance targets. KVRTA is classified by the Federal Transit Administration as a Tier II provider.

Transit Asset Management Plan (TAM) - Tier II providers may develop their own plans or participate in a Group Plan, which is compiled by a Group Plan Sponsor. KVRTA was invited by the West Virginia Division of Public Transit (WVDPT) to participate in the statewide Group TAM plan and opted to do so. KVRTA has designated its Executive Director as the Accountable Executive to ensure that the necessary resources are available to carry out the TAM plan.

The TAM Plan asset inventory includes assets that are used in the provision of public transit. This includes (with the exception of equipment) assets that are owned by a third party or shared resources. The inventory must include all service vehicles, and any other owned equipment assets over $50,000 in acquisition value. Agencies only need to include condition assessment for assets for which they have direct capital responsibility.

Targets have been set by KVRTA and the WVDPT for each applicable asset class for the coming year and are updated annually in the fall. To the extent feasible, targets are supported by data such as the most recent condition data and reasonable financial projections for the future, but the overall end goal is to be in a system-wide State of Good Repair (SGR).

A TAM plan must be updated in its entirety at least every 4 years, and it must cover a horizon period of at least 4 years. The RIC supported the performance targets set by the WVDOT Division of Public Transit in the Group Asset Management Plan on December 13th, 2018, December 12th, 2019, and December 10, 2020.

The WVDPT reports annually to FTA's National Transit Database (NTD). This submission should include: (1) projected targets for the next fiscal year; (2) condition assessments and performance results; and (3) a narrative report on changes in transit system conditions and the progress toward achieving previous performance targets. KVRTA is responsible for submitting the TAM asset inventory SGR report to the WVDPT (thru its AVIS system) by July 31st of each fiscal year to allow the WVDPT to comply with Annual NTD reporting requirements.

Public Transportation Agency Safety Plan (PTASP) - KVRTA is required to develop safety plans that include the processes and procedures to implement Safety Management Systems (SMS). It establishes performance measures to improve the safety of public transportation systems that receive federal financial assistance. The plan must include safety performance measures (fatalities, injuries, safety events and system reliability) selected by FTA that are intended to provide "state of the industry"

high-level measures and help focus individual agencies on the development of specific performance indicators and measurable targets relevant to their operations.

KVRTA also must certify they have a safety plan in place to meet the requirements. The KVRTA Board of Members adopted the Authority's PTASP on November 21, 2019. The plan must be updated and certified by the transit agency annually. KVRTA conducted its first annual agency safety plan review in November 2020 with no changes made. The current PTASP was approved in November 2021, in which the safety target for fatalities for Demand Response Service was adjusted.

All performance targets adopted by RIC for PM1, PM2, PM3, and transit can be viewed in Section 5 of this document

Implementation

The Regional Intergovernmental Council, in collaboration with the WVDOH, FHWA, KVRTA, and other interagency regional partners have developed the 2050 Metropolitan Transportation Plan (MTP). The six guiding statements, listed below, the Congestion Management Process of the MTP, and the seven national policy goals, listed above, are the foundation and framework for selecting projects for performance-based planning and programming in the TIP. The TIP, therefore, is the vehicle for implementation of the MTP. Each project in the TIP seeks to work through a guiding statement towards a given performance target. The guiding statement and performance measure associated with each project is listed below each project in the Highway Improvement Project List in Section 2. The guiding statements of the MTP are discussed below.

Culture and Environment

- Preserve and sustain the natural and built environments.

Economic Vitality

- Promote economic development through targeted transportation investments

Land Use and Transportation Integration

- Improve the integration of land use and transportation

Mobility and Accessibility

- Promote an efficient, interconnected, and accessible transportation network

Safety and Security

- Improve the travel safety and security in the Greater Kanawha Valley

System Preservation and Efficiency

- Support and strengthen the current transportation network

System Performance Report

RIC has created and maintains a System Performance Report to optimize transportation investments. RIC monitors performance measures and implementation of the Transportation Performance Management (TPM) framework

into the planning process. This report serves as a component of the Congestion Management Process (CMP) from the most recent MTP update, the 2050 Metropolitan Transportation Plan. FHWA defines a CMP as, "a systematic approach collaboratively developed and implemented throughout a metropolitan region, that provides for the safe and effective management and operation of new and existing transportation facilities through the use of demand reduction and operational management strategies". The RIC System Performance Report will be updated annually or on an as-needed basis during the interim years of the 4-year metropolitan transportation plan update cycle. A report of this nature aids in assessing the efficiency of the existing transportation system and provides guidance to implement performance-based planning into transportation planning activities while supporting FHWA's TPM and Performance-Based Planning and Programming framework to the maximum extent practicable.

Financial Feasibility

The FY 2022-2025 TIP is a cost constrained document, all highway projects listed in the TIP have been programmed by the WV Division of Highways and are reasonably expected to be funded as programmed within the time frame of the TIP.

The Kanawha Valley Regional Transportation Authority (KVRTA), the public transit provider for Kanawha County, WV, certifies that, pursuant to FTA Circular 7008.1, it has the financial capacity to carry out programs and projects included in RIC's TIP. While KVRTA has experienced recent increases in operating costs, due largely to inflation and increased fuel costs; the Authority has been able to absorb these increases as a result of:

- management practices to curtail unproductive service;
- annual fuel program administration which takes advantage of long-term fuel contracts; and
- the historic average increases (2% per year) in the local funding generated annually through revaluations of property taxes.

KVRTA's excess levy was renewed in May 2018. The levy is in effect until June 30, 2024. Renewal of the levy will be placed on the ballot in May 2022 and, if approved, will provide funding from July 1, 2024 through June 30, 2029. The levy receipts should assure financial stability over the next five fiscal years. KVRTA expects federal funding levels to remain at current levels. KVRTA's financial stability over the period of RIC's TIP is assured. The Public Transit Improvement Plan Justifications and Project List can be viewed in Section 3 of this document.

Transit projects are dependent on future Section 5307 and 5310 (formula) funding at current levels and Section 5309 (discretionary) funding which can reasonably be anticipated. Programmed federal funding by type and fiscal year are shown on the table in Section 4.

Explanation of Acronyms

	Federal Funding Category	**Federal Portion**	**Local Portion***
ACHP	Advance Construction High Priority	80%	20%
ACST	Advance Construction	80%	20%
AUG REDI	August Redistribution	TBD	
BR	Bridge Replacement and Rehabilitation	80%	20%
CMAQ	Congestion Mitigation and Air Quality	80-90%	10-20%
CMAQ 2.5	Congestion Mitigation and Air Quality	80%	20%
ER	Emergency Relief Program	80-100%	0-20%
HSIP	Highway Safety Improvement Program	80-90%	10-20%
NHFP	National Highway Freight Program	80-90%	10-20%
NHPP	National Highway Performance Program	80-90%	10-20%
NHPP-EXE	National Highway Performance Program (Exempt)	90%	10%
NHS	National Highway System	80%	20%
NRT	Recreational Trails	80%	20%
RR/HWY XI	Railroad Crossings/ Highway Crossings	90%	10%
Section 5307	FTA Formula (Operating/Capital)	50/80%	50/20%
Section 5309	FTA Discretionary Capital Grant	80%	20%
Section 5310	FTA Elderly/Handicapped Capital Grants	80%	20%
Section 5339	Bus and Bus Facilities Program	50%	50%
STBG	Surface Transportation Block Grant Program	80-90%	10-20%
STBG <5K POP	Surface Transportation Block Grant Program, population <5,000	80-90%	10-20%
STBG 5-50K POP	Surface Transportation Block Grant Program, population between 5,000 and 50,000	80-90%	10-20%
STBG 50-200K POP	Surface Transportation Block Grant Program, population between 50,000 and 200,000	80-90%	10-20%
STBG-TMA	Surface Transportation Block Grant Program - Transportation Management Area	80-90%	10-20%
STP	Surface Transportation Program	80%	20%
STP-TMA	Surface Transportation Program-Transportation Management Area	80%	20%
STP-OFF	Surface Transportation Program - Off System Bridge	80%	20%

TAP	Transportation Alternatives Program	80-90%	10-20%
TAP-TMA	Transportation Alternatives Program - Transportation Management Area	80%	20%
HIF	Highway Infrastructure Funds	80%	20%
FLAP	Federal Lands Access Program	80-90%	
*The maximum share of project costs that may be funded with Federal-aid highway funds (the "Federal share") varies based upon the Federal-aid program from which the project… …receives funding. In some cases the Federal share is also adjusted based on related statutory provisions. See (23 U.S.C. 120)			

Explanation of Acronyms Continued

	Phase of Work
PR	Project
PE	Preliminary Engineering
CP	Contract Plans
RW	Right of Way
CN	Construction
FS	Feasibility Study
EIS	Environmental Impact Statement
DR	Design Report

	Project Name/ Type of Work
BR	Bridge
C&P	Clean & Paint
O/L	Overlay
INSP	Inspection
I/C	Interchange
T	Technical Support
TPK	Turnpike
X	System Expansion
N/S/E/WB	North/South/East/West Bound

	Agency
WVDOT	West Virginia Department of Transportation
WVDOH	West Virginia Division of Highways
KVRTA	Kanawha Valley Regional Transportation Authority
FHWA	Federal Highway Administration
USDOT	United States Department of Transportation

RIC TIP/TIP Amendments and Public Involvement Schedule

Schedule (calendar days)	Activity
30 days before RIC Policy Board meeting	RIC staff requests draft TIP amendment project data from WV DOH Planning Division
15 days before RIC Policy Board meeting	Publication of legal notice in the Charleston Gazette-Mail notifying public of new TIP document or TIP amendments
15 days before RIC Policy Board meeting	New TIP document or TIP amendments distributed to air quality conformity interagency consultation group for concurrence
Two days before RIC Policy Board meeting	Proposed TIP or TIP amendments presented to the RIC Transportation Technical Advisory Committee (TTAC) for review, comment and recommendation
The day of the RIC Policy Board Meeting	New TIP or TIP amendments presented to RIC Policy Board for adoption at quarterly RIC Policy Board meeting
One day after the RIC Policy Board meeting	The adopted TIP or TIP Project amendments list is submitted to the WVDOT Secretary for approval
Approximately 30 days after TIP or TIP amendments adoption	Notice of approval of new RIC TIP or TIP amendments is distributed by WVDOT Secretary to RIC, FHWA, FTA and WVDEP.
Approximately 30 days after TIP or TIP amendments adoption	Notice is issued by WVDOH that RIC TIP Amendments have been added to the Statewide Transportation Improvement Program (STIP) project list

Public Involvement
The public is notified via legal ad of any new amendments to the TIP or new TIP adoptions at least fifteen days before the RIC Policy Board meeting. Throughout RICs transportation planning process there are many opportunities for public involvement that are detailed in RIC's Public Participation Plan, which is available at the RIC office, or can be viewed on RIC's website, wvregion3.org.

Environmental Justice
Environmental Justice is the fair treatment and meaningful involvement of all people, regardless of race, ethnicity, income, national origin, or educational level with respect to the development, implementation and enforcement of environmental laws, regulations and policies. RIC identifies minority and low-income population groups to contribute in the evaluation and assessment of any plan or program produced by RIC or by consultants under contract for RIC. By ensuring opportunities for minority and low-income communities to influence the transportation planning and decision-making processes through enhanced engagement and meaningful input, the MPO actively prevents disproportionately high and adverse effects of transportation projects on minority and low-income communities. Members of these minority and low-income communities have an opportunity to influence project decisions with their input. More information on RICs Environmental Justice and Public Participation may be found within the Public Participation Plan on RIC's website.

Interagency Consultation
In order to ensure that all transportation improvement projects contained within RIC's TIP do not adversely affect regional air quality, an interagency consultation process is maintained by RIC staff with participation by a representative from the Federal Highway Administration, the Federal Transit Administration, the West Virginia Department of Environmental Protection-Division of Air Quality, the West Virginia Department of Transportation and the United States Environmental Protection Agency. All proposed amendments to RIC's TIP shall be distributed to each representative for review and comment at least 15 days prior to the date of a RIC Policy Board meeting. Comments from each representative or one designee shall be submitted to the RIC in writing at least three days before the meeting. If there are no adverse issues regarding air quality, an email stating that there are no adverse effects from the appointed designee will be sufficient.

Air Quality Conformity
The Charleston Metropolitan Planning Area (Kanawha and Putnam counties) is currently designated as a maintenance area for the PM 2.5 (particulate matter, 2.5 microns) air pollutant component. On April 30, 2014, the Environmental Protection Agency determined that PM 2.5 mobile emissions is not a significant contributor of air pollution within the planning area. As a result, no regional mobile source emissions modeling analysis is required. The requirement to demonstrate air quality conformity per the requirements of 40 CFR 93.109 (f) still applies. Additionally, federally funded

transportation improvement projects within the planning area are still subject to project level transportation conformity analysis requirements.

The revocation of the 1997 eight-hour ozone standard and the final rule for implementing the 2008 ozone national ambient air quality standards (NAAQS) (the "2008 ozone NAAQS") became final on April 6, 2015. As a result, the Charleston Metropolitan Planning Area is no longer required to conduct mobile source air quality conformity determinations for the 1997 eight-hour ozone standard.

In April 2018 the EPA revoked the 1997 revocation of the eight-hour ozone standard. Please see Section 6 for the updated Air Quality Conformity Analysis Report for the region from September 2018.

Digital TIP Map

The Regional Intergovernmental Council has made available a Digital TIP Map for Kanawha and Putnam Counties. This map is a general representation of project locations in the region from the Transportation Improvement Program Project Listing. The map is updated following each quarterly Policy Board meeting and approval of new TIP amendments and adjustments to reflect any changes. The purpose of this map is to provide supplemental information to constituents regarding how federal funding is being spent in their area. The map can be viewed by visiting RIC's website, www.wvregion3.org and scrolling over the "Transportation" button, by scrolling to or selecting the "Transportation Improvement Program," and selecting the button or hyperlink for "Interactive TIP Map." It can also be accessed by entering the following URL into your web browser: https://arcg.is/1iT0XW

SECTION 2

Kanawha County																
FFY	**Estimated Obligation Date**	**Fund Type**	**Phase**	**Route**	**Project Name**		**State Project #**	**Federal Project #**	**Length**	**Beg. MP**	**Total Phase $ Amount**	**Federal $ Amount**	**Comment**	**Project Program***	**Groupable / Not**	**PM****
2022	2/28/2022	HWI-BR	CON	I 64	Carter Br - Brooks St I/C (AC Payback)	Bridge Rehabilitation	S32064575400	NHPP0642164DTC	1.75	45.39	20,000,000	20,000,000	Change obligation date, change FFY, change fund type	Bridge	NG	2
2023	11/28/2022	HWI-BR	CON	I 64	Carter BR - Brooks St I/C (AC Payback)	Bridge Rehabilitation	S32064575400	NHPP0642164DTC	1.75	45.39	17,661,934	17,661,934		Bridge	NG	2
2023	11/28/2022	NHPP	CON	I 77	Charleston O/H Sign Replacement	Replace O/H Signs	S320771018400	NHPP0077098DTC	0.03	101.84	1,000,000	1,000,000	Change obligation date, change FFY, cost increase	Traffic	G	1
2022	2/28/2022	NHPP	CON	US 119	Davis Creek - Oakwood	Resurfacing	S320119140500	NHPP0119460D	2.24	14.04	3,400,000	2,720,000	Change obligation date	Resurface	G	2
2024	11/28/2023	NHPP	CON	I 77	Tuppers Creek - Pocatalico	Resurface (Superpave)	S320 77 11006 003	NHPP0773483D	3.32	110.6	4,350,000	3,480,000		Resurface	G	2
2025	12/28/2024	NHPP	CON	I 79	Access Rd - Willis Creek	Resurface (Double Micro)	S320 79 1330 00	NHPP0791134D	2.2	13.3	750,000	600,000		Resurface	G	2
2024	4/28/2024	NRT	CON	N/A	Hatfield-McCoy-Kanawha Co. Trail System	Construct Trail	U320HATFI100	NRT2014201D	_	_	100,000	80,000		Community Development	G	3
2024	4/28/2024	NRT	ENG	N/A	Hatfield-McCoy-Kanawha Co. Trailhead Facility	Construct Trailhead Facility	U320HATFI200	NRT2018088DTC	_	_	30,000	30,000		Community Development	G	3
2023	4/28/2023	NRT	CON	N/A	Hatfield-McCoy-Kanawha Co. Trailhead Facility	Construct Trailhead Facility	U320HATFI200	NRT2018195D	_	_	75,000	60,000		Community Development	G	3
2024	10/28/2023	OTHER-FED	CON	I 64	Montrose - Oakwood	Replace Drainage Structure	S320640555700	NFA2517008D	3.55	55.57	2,400,000	0	Change fund type	Resurfacing	G	3
2023	10/28/2022	STBG 5-50K POP	CON	WV 622	WV 622 - Cross Lanes (GO BOND 4)	Widen Roadway	U32062219600	NFA2617002	1.24	1.96	16,000,000	1,600,000	Change fund type	Resurface	NG	3
2022	5/28/2022	STBG 50-200K POP	CON	WV 114	Jerry Alan Jones Memorial BR O/L	Concrete Overlay	S32011466100	STBG0114032D	0.14	6.6	1,100,000	880,000	Change fund type, add "O/L" to project name	Bridge	G	2
2022	2/28/2022	STBG 50-200K POP	CON	CO 09	Tornado Br O/L	LMC Overlay	S320961900	STP0009238DTC	0.07	6.19	300,000	300,000	Change obligation date, change fund type	Bridge	G	2
2022	3/28/2022	STBG 50-200K POP	CON	WV 817	WV 817 Drainage	Replace Drainage	S32081709500	STP0817005DTC	0.07	0.95	250,000	250,000	Change obligation date, change fund type	Bridge	G	3
2025	5/28/2025	STBG 50-200K POP	ENG	WV 622	Rocky Fork Channel Beam	Replace	S32062255100	STP0622030D	0.01	5.51	775,000	620,000	Change fund type	Bridge	G	2
2025	5/28/2025	STBG 50-200K POP	ROW	WV 622	Rocky Fork Channel Beam	Replace	S320 622 551 00	STP0622031D	0.01	5.51	42,500	34,000	Change fund type	Bridge	G	2
2022	8/28/2022	TAP	ENG	NA	Charleston Greenbrier St	Design Multi-Modal Project	U320CHAS4800	TAP2015274D	_	_	150,000	120,000		Community Development	G	3
2023	11/28/2022	TAP	CON	NA	Charleston Washington St W Streetscape 2012	Const Sidewalk	U320CHAS202	TEA2012630D	_	_	245,772	196,618		Community Development	G	3
2023	11/28/2022	TAP	ROW	NA	Charleston Washington St W Streetscape 2012	Const Sidewalk	U320CHAS202	TEA2012664D	_	_	317,000	253,600	Change FFY	Community Development	G	3
2022	7/28/2022	TAP	CON	NA	St Albans Streetscape 2014	Construct Sidewalk	U320STALB1000	TAP2014205D	_	_	241,000	192,800		Community Development	G	1, 3
2022	3/28/2022	STBG 50-200K POP	CON	WV 25	First Ave Nitro Traffic Signals +4	Renov Traffic Signals	S320 25 00246 00	STP0025138D	0.05	2.46	1,400,000	1,120,000	Change obligation date, change fund type, cost increase	Traffic	G	1, 3
2023	1/28/2023	NHPP	CON	I 64	Institute - Nitro	3' Micro On Pvmt Joints	S340 64 04497 00	NHPP0641407D	4.53	44.55	350,000	280,000		Resurfacing	G	2
2025	1/28/2025	NHPP	CON	US119	Lincoln Co Ln - WV 214	Resurf (Double Micro)	S320 119 0580 00	NHPP0119466D	5.55	5.79	1,850,000	1,480,000		Resurfacing	G	2
2022	5/28/2022	NHPP	CON	US119	Oakwood Rd - WV 61	3' Micro On Joints	S320 119 01627 00	NHPP0119468D	1.22	16.26	150,000	120,000	Change obligation date	Resurfacing	G	2
2022	5/28/2022	NHPP	CON	US119	Ruth - Davis Creek	3 Ft W Micro Joint	S320 119 1143 00	NHPP0119480D	2.55	11.43	300,000	240,000	Change obligation date	Resurfacing	G	2
2025	1/28/2025	NHPP	CON	WV622	Big Tyler Rd	Design/Build ADA Ramps	S320 622 00216 00	STP0062033D	1.63	2.16	666,000	532,800		Community Development	G	1
2022	2/28/2022	STBG 50-200K POP	CON	US119	Clendenin St +1	Design/Build ADA Ramps	S320 119 03846 00	STP0119483D	1.06	38.46	153,000	122,400	Change obligation date	Community Development	G	1
2022	2/28/2022	NHPP	CON	WV025	Dunbar Ave	Design/Build ADA Ramps	S320 25 00842 00	NHPP0025139D	2	8.42	639,000	511,200	Change obligation date	Community Development	G	1
2023	10/28/2022	TAP	CON	NA	Grosscup Ave Sidewalks	Design/Build ADA Ramps	U320 GROSS 1 00	TAP2019223D	_	_	75,000	60,000		Community Development	G	1
2022	7/28/2022	TAP	ENG	NA	Grosscup Ave Sidewalks	Replace Sidewalks	U320GROSS100	TAP2019222DTC	_	_	30,000	30,000		Community Development	G	1
2024	1/28/2024	NHPP	CON	US60	Iowa Street +5	Design/Build ADA Ramps	S320 60 00762 00	NHPP0060377D	0.27	7.62	459,000	367,200		Community Development	G	1
2025	1/28/2025	NHPP	CON	CO12	Kanawha Turnpike +2	Design/Build ADA Ramps	S320 12 00428 00	STP0012060D	1.81	4.28	468,000	374,400		Community Development	G	3
2024	1/28/2024	STBG 50-200K POP	CON	US60	Lee Street	Design/Build ADA Ramps	S320 60 01601 00	STP0060369D	1.18	16	333,000	266,400	Change fund type	Community Development	G	3

Kanawha County

FFY	Estimated Obligation Date	Fund Type	Phase	Route	Project Name		State Project #	Federal Project #	Length	Beg. MP	Total Phase $ Amount	Federal $ Amount	Comment	Project Program*	Groupable / Not	PM**
2025	1/28/2025	NHPP	CON	US60	Maccorkle Avenue +1	Design/Build ADA Ramps	S320 60 00919 00	NHPP0060370D	3.79	9.19	648,000	518,400		Community Development	G	1
2024	1/28/2024	STBG 50-200K POP	CON	CO64/03	Washington Street +2	Design/Build ADA Ramps	S320 6403 00000 00	STP0643003D	0.41	0	387,000	309,600	Change fund type	Community Development	G	1
2024	1/28/2024	STBG 50-200K POP	CON	US60	Washington Street E +1	Design/Build ADA Ramps	S320 60 01653 00	STP0060376D	2.11	16.53	1,368,000	1,094,400	Change fund type	Community Development	G	1
2022	2/28/2022	STBG 50-200K POP	CON	WV61	West Montgomery - East Bank +1	Design/Build ADA Ramps	S320 61 00001 00	STP0061415D	8.82	0	531,000	424,300	Change obligation date, change fund type	Community Development	G	1
2022	4/28/2022	NHPP	CON	I 64	MacCorkle Ave - Oakwood	Resurface (Full Dept Reconstruction)	S320 64 05242 00	NHPP0642180DTC	4.25	53.75	13,200,000	13,200,000	Change obligation date, cost increase, increase federal share, change project numbers, add toll credits	Resurface	NG	1, 2
2022	2/28/2022	STBG 50-200K POP	CON	US 60	Washington St E	Resurface (1.5")	S32060167500	STP0060366D	1.89	16.75	990,000	792,000	Change obligation date, change fund type	Resurface	G	1, 2
2024	1/28/2024	NHPP	CON	US 60	Glasgow - Hugheston Rd	Resurf(1.5")	S32060367100	NHPP0060365D	2.9	36.71	850,000	680,000		Resurface	G	1, 2
2022	2/28/2022	NHPP	CON	WV 61	35Th St - 56Th St	Resurf(1.5")	S32061238000	NHPP0061413DTC	1.95	23.79	2,100,000	2,100,000	Change obligation date, increase federal share, add 'TC' for toll credits to federal project number	Resurface	G	1, 2
2024	1/28/2024	STBG 50-200K POP	CON	WV 62	Tyler Mountain Rd	Resurf(1.5")	S3206200100	STP0062863D	0	3.06	860,000	688,000	Change fund type	Resurface	G	1, 2
2022	5/28/2022	NHPP	ENG	I 77	I-77 Belle Ramp Over Piedmont & RR	Rehab	S32077956600	NHPP0073490DBC	0.04	95.65	550,000	550,000	Add 'BC' for bridge credit to federal project number	Bridge	G	2
2023	10/28/2022	NHPP	ROW	I 77	I-77 Belle Ramp Over Piedmont & RR	Rehab	S32077956600	NHPP0073491D	0.04	95.65	275,000	220,000		Bridge	G	2
2024	5/28/2024	NHPP	CON	I 77	I-77 Belle Ramp Over Piedmont & RR	Rehab	S32077956600	NHPP0073492D	0.04	95.65	5,500,000	4,400,000		Bridge	NG	2
2022	5/28/2022	NHPP	ENG	I 77	I-77 Belle Ramp Over US 60	Rehab	S32077957100	NHPP0073493D	0.03	95.7	350,000	280,000		Bridge	G	2
2023	10/28/2022	NHPP	ROW	I 77	I-77 Belle Ramp Over US 60	Rehab	S32077957100	NHPP0073493D	0.03	95.7	175,000	140,000		Bridge	G	2
2024	5/28/2024	NHPP	CON	I 77	I-77 Belle Ramp Over US 60	Rehab	S32077957100	NHPP0073495D	0.03	95.7	3,500,000	2,800,000		Bridge	NG	2
2022	2/28/2022	TAP	ENG	WV 61	Marmet Lens Creek Rd	Sidewalk	U320 MARMT 1 00	TAP2020232D	-	-	50,000	40,000	Change obligation date	Community Development	G	3
2022	4/28/2022	NHPP	ENG	US 119	Corridor G Lighting	Update Lighting	U320119155200	NHPP0119494D	1.74	15.51	250,000	200,000		Traffic	G	1
2023	5/28/2023	NHPP	CON	US 119	Corridor G Lighting	Update Lighting	U320119155200	NHPP0119495D	1.74	15.51	2,500,000	2,000,000		Traffic	G	1

1) BRIDGE PROGRAM
2) COMMUNITY DEVELOPMENT and CONNECTIVITY PROGRAM
3) LOCALIZED MOBILITY IMPROVEMENT PROGRAM
4) PLANNING AND WORKFORCE DEVELOPMENT PROGRAM
5) RESURFACING PROGRAM
6) TRAFFIC PROGRAM
7) REGIONAL MOBILITY PROGRAM
8) TRANSIT PROGRAM

PM1 - Safety
· Number of fatalities;
· Number of serious injuries;
· Fatality rate per HMVMT;
· Serious injury rate per HMVMT;
· Number of non-motorized fatalities and serious injuries.

PM2 - Pavement and Bridge
· Assess the condition of pavements on the Interstate System and on the Non-Interstate National Highway System (NHS)
· Assess the condition of bridges carrying the Non-Interstate NHS.

PM3 - System Performance, Freight, Congestion and Air Quality
· Assess the performance of the Interstate and Non-Interstate NHS.
· Assess freight movement on the Interstate System.
· Assess traffic congestion and on-road mobile source emissions for carrying out the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

Kanawha County Justifications				
FFY	**FUND**	**PHASE**	**NAME**	**GUIDING STATEMENT**
2022, 2023	HWI-BR	CON	Carter BR - Brooks St I/C (Split funded)(AC PAYBACK)	System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2022	NHPP	CON	Davis Creek - Oakwood	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2024	NHPP	CON	Tuppers Creek - Pocatalico	Safety & Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2025	NHPP	CON	Access Rd - Willis Creek	Safety & Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2024	NRT	CON	Hatfield-McCoy-Kanawha Co. Trail System	Culture & Environment: Promotes cultural activities in the region through the construction of a new recreational trail. Economic Vitality: Draws economic activity to the region through the expansion of cultural activities. Land Use & Transportation Integration: Invests in recreation with minimal land use.
2024, 2023	NRT	ENG, CON	Hatfield-McCoy-Kanawha Co. Trailhead Facility	Culture & Environment: Promotes cultural activities in the region through the construction of a new recreational trailhead. Economic Vitality: Draws economic activity to the region through the expansion of cultural activities. Land Use & Transportation Integration: Invests in recreation with minimal land use.
2024	OTHER-FED	CON	Montrose - Oakwood	System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2023	STBG 5-50K POP	CON	WV 622 - Cross Lanes (GO BOND 4)	Economic Vitality: This project seeks to reduce travel times. System Preservation & Efficiency: This project seeks to optimize already existing infratructure for motor vehicle use.
2022	STBG 50-200K POP	CON	Jerry Alan Jones Memorial BR O/L	Culture & Environment: Preserves a culturally and regionally significant bridge that honors the memory of Jerry Alan Jones. System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2022	STBG 50-200K POP	CON	Tornado BR O/L	System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2022	STBG 50-200K POP	CON	WV 817 Drainage	System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2025	STBG 50-200K POP	ENG ROW	Rocky Fork Channel Beam	System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2023	TAP	ROW, CON	Charleston Washington St W Streetscape 2012	Economic Vitality: Improves walkability at an economically distressed location of Kanawha County that hosts many businesses. Mobility & Accessibility: Creates an accessible pedestrian public right of way. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic.
2022	TAP	CON	St. Albans Streetscape 2014	Economic Vitality: Improves walkability in a business and government services hotspot. Mobility & Accessibility: Improves accessibility of roadways by creating a public right of way. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic.

Kanawha County Justifications				
FFY	**FUND**	**PHASE**	**NAME**	**GUIDING STATEMENT**
2022	STBG 50-200K POP	CON	First Ave Nitro Traffic Signals +4	Safety & Security: Seeks to reduce the likelihood of a collision by controlling vehicle movements through improved traffic signalization. System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2023	NHPP	CON	Institute - Nitro	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2025	NHPP	CON	Lincoln Co Ln - WV 214	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2022	NHPP	CON	Oakwood Rd - WV 61	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2022	NHPP	CON	Ruth - Davis Creek	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2022	TAP	ENG	Charleston Greenbrier St	Mobility and Accessibility: Designs a multimodal path making roadway accessible to both motor vehicles and active transportation users. Safety and Security: Designs for safe roadway conditions for bicyclists and pedestrians. Culture and Environment: Promotes pollution-free travel.
2025	NHPP	CON	Big Tyler Rd	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2022	STBG 50-200K POP	CON	Clendenin St +1	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2022	NHPP	CON	Dunbar Ave	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2022, 2023	TAP	CON, ENG	Grosscup Ave Sidewalks	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2024	NHPP	CON	Iowa Street +5	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.

Kanawha County Justifications				
FFY	**FUND**	**PHASE**	**NAME**	**GUIDING STATEMENT**
2025	NHPP	CON	Kanawha Turnpike +2	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2024	STBG 50-200K POP	CON	Lee Street	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2025	NHPP	CON	Maccorkle Avenue +1	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2024	STBG 50-200K POP	CON	Washington Street +2	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2024	STBG 50-200K POP	CON	Washington Street E +1	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2022	STBG 50-200K POP	CON	West Montgomery - East Bank +1	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2022	NHPP	CON	MacCorkle Ave - Oakwood	Safety and Security: Improves safety for motor vehicle travelers by installing new roadway surfaces, reducing the likelihood of the formation of roadway deformities that could cause a motor vehicle crash via roadway departure. System Preservation & Efficiency: Resurfaces to ensure system preservation.
2022	STBG 50-200K POP	CON	Washington St E	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2024	NHPP	CON	Glasgow - Hugheston Rd	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2022	NHPP	CON	35Th St - 56Th St	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2024	STBG 50-200K POP	CON	Tyler Mountain Rd	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.

Kanawha County Justifications				
FFY	**FUND**	**PHASE**	**NAME**	**GUIDING STATEMENT**
2022, 2023, 2024	NHPP	ENG, ROW, CON	I-77 Belle Ramp Over Piedmont & RR	System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2022, 2023, 2024	NHPP	ENG, CON, ROW	I-77 Belle Ramp Over US 60	System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2023	NHPP	CON	Charleston O/H Sign Replacement	System Preservation: Preserves roadway by replacing informational signage.
2022	TAP	ENG	Marmet Lens Creek Rd	Economic Vitality: Improves walkability in a way that connects residents to businesses. Mobility & Accessibility: Creates an accessible pedestrian public right of way. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic.
2022, 2023	NHPP	ENG, CON	Corridor G Lighting	Safety & Security: Improves nightime visibility.

Putnam County																
FFY	**Estimated Obligation Date**	**Fund Type**	**Phase**	**Route**	**Project Name**	**Type of Work**	**State Project #**	**Federal Project #**	**Length**	**Beg. MP**	**Total Phase $ Amount**	**Federal $ Amount**	**Comment**	**Project Program***	**Groupable / Not**	**PM****
2022	3/28/2022	HSIP	CON	CO 21	Grandview Ridge Gdrl	Install Guardrail	U3402112200	HSIP0021418D	3.65	1.22	128,000	115,200	Change obligation date	Traffic	NG	1
2022	7/28/2022	STBG-TMA	CON	NA	Great Teays Blvd Sidewalk	Construct Sidewalk	U340TEAYS200	STP2016292D	_	_	340,000	272,000		Community Development	G	3
2023	7/28/2023	NHPP	CON	I 64	Hurricane Rest Area (EB)	Construct Restrooms, Ren Facility	S34064346000	NHPP0641390DTC	0	34.6	3,000,000	3,000,000		Resurface	G	1
2023	7/28/2023	NHPP	CON	I 64	Hurricane Rest Area (WB)	Construct Restrooms, Ren Facility	S34064345000	NHPP0641389DTC	0	34.5	3,000,000	3,000,000		Resurface	G	1
2023	1/28/2023	STBG-TMA	CON	NA	Hurricane Sidewalks	Construct Sidewalk	U340HURRI800	STPG2016294D	_	_	276,000	220,800		Community Development	G	3
2023	10/28/2022	TAP	CON	N/A	Teays Valley Sidewalks 2015	Construct Sidewalk	U340TEAYS100	TAP2015063D	_	_	300,000	240,000		Community Development	G	3
2022	2/28/2022	HWI-BR	CON	I 64	US35/I64 I/C - Nitro I/C (D/B)(GO Bond)(AC Payback)	Upgrade to 6 lanes	U340640413700	NHPP0641399	3.79	41.37	20,000,000	20,000,000	Change obligation date	Regional Mobility	NG	3
2023	11/28/2022	HWI-BR	CON	I 64	US35/I64 I/C - Nitro I/C (D/B)(GO Bond)(AC Payback)	Upgrade to 6 lanes	U340640413700	NHPP0641399	3.79	41.37	20,000,000	20,000,000		Regional Mobility	NG	3
2024	11/28/2023	NHPP	CON	I 64	US35/I64 I/C - Nitro I/C (D/B)(GO Bond)(AC Payback)	Upgrade to 6 lanes	U340640413700	NHPP0641399	3.79	41.37	9,520,435	9,520,435		Regional Mobility	NG	3
2024	12/28/2023	TAP	CON	N/A	Winfield Downtown Streetcape	Design/Construct Sidewalk	U340WINFI200	TAP2015256D	_	_	294,650	294,650		Community Development	G	3
2022	5/28/2022	STBG-TMA	ROW	NA	Great Teays Blvd Sidewalk	Construct Sidewalk	U340TEAYS200	STP2020070D	_	_	50,000	40,000		Community Development	G	3
2024	5/28/2024	STBG <5K POP	ROW	CO 019	Hurricane Creek Bridge	Replace	S340 19 854 00	STP0019491D	0.03	8.54	112,500	90,000	Change obligation date, change fund type	Bridge	G	2
2024	10/28/2023	STBG-FLEX	ENG	CO 019	Hurricane Creek Bridge	Replace	S340 19 854 00	STP0019490D	0.03	8.54	900,000	720,000	Change fund type	Bridge	G	2
2025	1/28/2025	STBG 5-50K POP	CON	WV062	Bancroft Rd +1	Design/Build ADA Ramps	S340 62 00585 00	STP0062865D	0.4	5.85	351,000	280,800	Change fund type	Community Development	G	3
2023	1/28/2023	STBG <5K POP	CON	WV062	Buffalo Rd	Design/Build ADA Ramps	S340 62 01943 00	STP0062869D	1.77	19.43	342,000	273,600	Change fund type	Community Development	G	3
2025	1/28/2025	STBG 5-50K POP	CON	CO019	Hurricane Creek Rd +3	Design/Build ADA Ramps	S340 19 00001 00	STP0019500D	0.57	0	198,000	158,400	Change fund type	Community Development	G	3
2025	1/28/2025	STBG 5-50K POP	CON	WV034 AL	Main Street	Design/Build ADA Ramps	S340A 34 00124 00	STP0034087D	0.47	1.24	153,000	122,400	Change fund type	Community Development	G	3
2025	1/28/2025	NHPP	CON	CO033	Teays Valley Rd	Design/Build ADA Ramps	S340 33 00000 00	STP0033432D	0.46	0	63,000	50,400		Community Development	G	3

Putnam County

FFY	Estimated Obligation Date	Fund Type	Phase	Route	Project Name	Type of Work	State Project #	Federal Project #	Length	Beg. MP	Total Phase $ Amount	Federal $ Amount	Comment	Project Program*	Groupable / Not	PM**
2023	1/28/2023	STBG 5-50K POP	CON	WV817	Winfield Rd	Design/Build ADA Ramps	S340 817 01087 00	STP0817007D	0.84	10.87	252,000	201,600	Change fund type	Community Development	G	3
2023	1/28/2023	STBG 5-50K POP	CON	US060	Fat Katz Lake Rd	Resurf (1.5")	S3406000000	STP0060364D	0	1.94	600,000	480,000	Change fund type	Resurface	G	2
2023	1/28/2023	STBG 5-50K POP	CON	WV034	Hurricane Rd	Resurf(1.5")	S34034168100	STP0034085D	0.72	16.81	600,000	480,000	Change fund type	Resurface	G	2
2023	1/28/2023	NHPP-EXEMPT	CON	US035	US 35	Resurf (1.5")	S340350002700	NHPP0035225DTC	2.49	0.27	2,400,000	2,400,000	Add 'TC" to federal project number - toll credits	Resurface	NG	2
2022	2/28/2022	STBG <5K POP	CON	WV062	Buffalo Rd	Resurf(1.5")	S34062188200	STP0062864D	3.08	18.82	960,000	768,000	Change obligation date, change fund type	Resurface	G	2
2022	2/28/2022	TAP	ENG	NA	Winfield Sidewalk System	Design Sidewalks	U340WINFI300	TAP2020239D	-	-	125,000	100,000	Change obligation date	Community Development	G	3
2022	2/28/2022	TAP	ENG	NA	Buffalo Main St	Design Sidewalks	U340BUFFA200	TAP2020240D	-	-	75,000	60,000	Change obligation date	Community Development	G	3
2022	2/28/2022	TAP	ENG	US 35	US 35 Settlement Study	Settlement Study	U2403500000	NHPP0035226D	-	-	850,000	680,000	Change obligation date	Community Development	G	3
2022	2/28/2022	TAP	ENG	NA	Eleanor Park SW ETX	Install Sidewalk	U340 ELEPK 1 00	TAP2020229D	-	-	75,000	60,000	Change obligation date	Community Development	G	3
2023	12/28/2022	TAP	ENG	NA	County Park Drive	New Sidewalk, walking bridge	U340CTYPK100	TAP2020228D	-	-	75,000	60,000		Community Development	G	PM 3
2022	2/28/2022	STBG	ENG	WV 62	WV 62 and Eighteen Mile Upgrade	Add Turn Lanes	S34006200212002 2	STBG0062862D	0.4	21.2	250,000	200,000	Add new project	Traffic	G	3
2022	2/28/2022	NHPP	CON	I 64	Culloden Interchange (GO Bond 2/3)	Construct New I/C & Connectors	U306 64 03165 00	NFA2617001	1	31.65	37,000,000	3,430,000	Change obligation date, move to Putnam County listing	Regional Mobility	NG	PM 3

EIGHT CORE PROGRAMS (GROUPS)*

1) BRIDGE PROGRAM
2) COMMUNITY DEVELOPMENT and CONNECTIVITY PROGRAM
3) LOCALIZED MOBILITY IMPROVEMENT PROGRAM
4) PLANNING AND WORKFORCE DEVELOPMENT PROGRAM
5) RESURFACING PROGRAM
6) TRAFFIC PROGRAM
7) REGIONAL MOBILITY PROGRAM
8) TRANSIT PROGRAM

PERFORMANCE MEASURES**

PM1 - Safety
- Number of fatalities;
- Number of serious injuries;
- Fatality rate per HMVMT;
- Serious injury rate per HMVMT;
- Number of non-motorized fatalities and serious injuries.

PM2 - Pavement and Bridge
- Assess the condition of pavements on the Interstate System and on the Non-Interstate National Highway System (NHS)
- Assess the condition of bridges carrying the Non-Interstate NHS.

PM3 - System Performance, Freight, Congestion and Air Quality
- Assess the performance of the Interstate and Non-Interstate NHS.
- Assess freight movement on the Interstate System.
- Assess traffic congestion and on-road mobile source emissions for carrying out the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

Putnam County Justifications				
FFY	**FUND**	**PHASE**	**NAME**	**GUIDING STATEMENT**
2022	HSIP	CON	Grandview Ridge GDRL	Safety and Security:Installing the guardrail will reduce severity of a roadway departure, the number one killer of West Virginia motorists.
2022	STBG-TMA	CON	Great Teays Boulevard Sidewalk	Mobility & Accessibility: Improves the accessibility of sidewalk conditions along a street that provides access to non-profit services and essential private services such as banking, internet, cell phone, grocery, and pharmacy. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic with wide and smooth surfaces.
2023	NHPP	CON	Hurricane Rest Area (EB)	Economic Vitality: By supporting the movevement of regional travelers. Safety & Security: Improves the safety of highway travel motorists by encouraging additional stops.
2023	NHPP	CON	Hurricane Rest Area (WB)	Economic Vitality: By supporting the movevement of regional travelers. Safety & Security: Improves the safety of highway travel motorists by encouraging additional stops.
2023	STBG-TMA	CON	Hurricane Sidewalks	Mobility & Accessibility: Adds infrastructure for improved walkability for pedestrians including persons with disablities. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic. Culture & Environment: Promotes pollution-free travel.
2023	TAP	CON	Teays Valley Sidewalks 2015	Mobility & Accessibility: Adds infrastructure for improved walkability for pedestrians including persons with disablities. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic. Culture & Environment: Promotes pollution-free travel.
2022, 2023, 2024	HWI-BR, NHPP	CON	US35/I64 I/C - Nitro I/C (D/B)(GO Bond)(AC Payback)	Economic Vitality: This project seeks to reduce travel times. System Preservation & Efficiency: This project seeks to optimize already existing infratructure for motor vehicle use.
2024	TAP	CON	Winfield Downtown Streetcape	Economic Vitality: Improves walkability in a business and government services hotspot. Mobility & Accessibility: Improves accessibility of roadways by creating a public right of way. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic.
2022	STBG-TMA	ROW	Great Teays Blvd Sidewalk	Mobility & Accessibility: Adds infrastructure for improved walkability for pedestrians including persons with disablities. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic. Culture & Environment: Promotes pollution-free travel.
2024	STBG-FLEX / STBG <5K POP	ENG ROW	Hurricane Creek Bridge	System Preservation & Efficiency: Preserves a critical element of the existing transportation network.
2025	STBG 5-50K POP	CON	Bancroft Rd +1	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2023	STBG <5K POP	CON	Buffalo Rd	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2025	STBG 5-50K POP	CON	Hurricane Creek Rd +3	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2025	STBG 5-50K POP	CON	Main Street	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2025	NHPP	CON	Teays Valley Rd	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2023	STBG 5-50K POP	CON	Winfield Rd	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2023	STBG 5-50K POP	CON	Fat Katz Lake Rd	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.

Putnam County Justifications				
FFY	**FUND**	**PHASE**	**NAME**	**GUIDING STATEMENT**
2023	STBG 5-50K POP	CON	Hurricane Rd	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2023	NHPP-EXEMPT	CON	US 35	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2022	STBG <5K POP	CON	Buffalo Rd	Safety and Security: Resurfacing the roadway will provide drivers greater control of their vehicles by reducing the likelihood their vehicle will come in contact with a pothole or other road surface deformity. System Preservation & Efficiency: Resurfacing this roadway serves as a preservation tool.
2022	TAP	ENG	Winfield Sidewalk System	Mobility and Accessibility: Curbs ramps allow for use by pedestrians in need of accessibility accommodations. Safety and Security: Allows for the safe exit or entry of the sidewalk. System Preservation & Efficiency: Preserves existing infrastructure by upgrading to comply with ADA standards.
2022	TAP	ENG	Buffalo Main St	Economic Vitality: Improves walkability in a way that connects residents to businesses. Mobility & Accessibility: Creates an accessible pedestrian public right of way. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic.
2022	TAP	ENG	Eleanor Park SW ETX	Mobility & Accessibility: Creates an accessible pedestrian public right of way. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic.
2023	TAP	ENG	County Park Drive	Mobility & Accessibility: Creates an accessible pedestrian public right of way. Safety & Security: Serves to separate and protect pedestrian travelers from motor vehicle traffic.
2022	STBG	ENG	WV 62 and Eighteen Mile Upgrade	Mobility & Accessibility: Improves traffic flow at an intersection.
2022	NHPP	CON	Culloden Interchange (GO Bond 2/3)	Mobility and Accessibility: Improves vehicle accessbility to the interstate in Culloden. Economic Vitality: Encourages travelers to stop and spend money in Culloden.

Districtwide																
FFY	**Estimated Obligation Date**	**Fund Type**	**Phase**	**Route**	**Project Name**	**Type of Work**	**State Project #**	**Federal Project #**	**Length**	**Beg. MP**	**Total Phase $ Amount**	**Federal $ Amount**	**Comment**	**Project Program***	**Group able / Not**	**PM****
2023	12/28/2022	NHPP	CON	I 64	I-64 Signing Hurricane-Dunbar	Renovate Signing	S340 64 03400 00	NHPP0641361DTC	19	34	1,200,000	1,200,000	Change obligation date, change FFY, remove "split fund" from project name	Traffic	G	PM 1
2022	2/28/2022	HSIP	CON	NA	Roadway Striping (D1)	Insert Pavement Mark (PAINT)	S381 STRIP 22 00	STP2022002D	-	-	1,844,857	1,291,399	Add new project	Traffic	G	PM 1
2022	2/28/2022	STBG	CON	NA	D-1 Recall Striping	Pavement Markings (PAINT)	S381 RECAL 22 00	STP2021010D	-	-	325,000	227,500	Add new project	Traffic	G	PM 1

1) BRIDGE PROGRAM
2) COMMUNITY DEVELOPMENT and CONNECTIVITY PROGRAM
3) LOCALIZED MOBILITY IMPROVEMENT PROGRAM
4) PLANNING AND WORKFORCE DEVELOPMENT PROGRAM
5) RESURFACING PROGRAM
6) TRAFFIC PROGRAM
7) REGIONAL MOBILITY PROGRAM
8) TRANSIT PROGRAM

PM1 - Safety
· Number of fatalities;
· Number of serious injuries;
· Fatality rate per HMVMT;
· Serious injury rate per HMVMT;
· Number of non-motorized fatalities and serious injuries.

PM2 - Pavement and Bridge
· Assess the condition of pavements on the Interstate System and on the Non-Interstate National Highway System (NHS)
· Assess the condition of bridges carrying the Non-Interstate NHS.

PM3 - System Performance, Freight, Congestion and Air Quality
· Assess the performance of the Interstate and Non-Interstate NHS.
· Assess freight movement on the Interstate System.
· Assess traffic congestion and on-road mobile source emissions for carrying out the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

Districtwide Justifications				
FFY	**FUND**	**PHASE**	**NAME**	**GUIDING STATEMENT**
2023	NHPP	CON	I-64 Signing Hurricane-Dunbar (Split Fund)	Safety and Secuity: Updates signage to improve safety of travelers usiging the highway to provide them with up-to-date and compliant roadway information regarding roadway safety and points of interests.

SECTION 3

FY 2022-2025
KVRTA Transportation Improvement Plan Justifications

Operating & Planning Assistance, FY 2022 – FY 2025. Ongoing Section 5307 allocations for operating assistance for Salaries, Wages, Fringes and/or other expenses incurred by KVRTA for transit service in the KVRTA service area.

Purchase Rolling Stock, FY 2022 - FY 2025*,* Section 5307, 5339, and/or other funds secured by KVRTA or State of West Virginia for the replacement and or expansion of existing fleet. Vehicles that will be replaced will, at the time of replacement, have met or exceeded FTA's required useful life requirements. KVRTA has programmed the replacement of three (3) 35' buses in FY 2025, and the replacement of three (3) 30' buses in FY 2026. KVRTA will have five (5) <30 ft. buses eligible for replacement in 2023 and has programmed the replacement of these buses with 5339 and 5307 funding. KVRTA has programmed the replacement of ADA Converted Lift Equipped Vehicles for use in KVRTA's paratransit service, utilizing 5339 funding as follows: six (6) vehicles in FY 2022, two (2) vehicles in FY 2023, three (3) vehicles in FY 2024 and two (2) vehicles in FY 2025.

Purchase Support Vehicle, FY 2022 - FY 2025**,** Section 5307, 5339 and/or other funds for the replacement and or expansion of existing support fleet. Vehicles that will be replaced will, at the time of replacement, have met or exceeded FTA's required useful life requirements. KVRTA has programmed the replacement of these vehicles as follows, utilizing 5339 funding: 1 vehicle in each of FY 2022 & FY 2024.

Effect on TAM/PTASP – the replacement of older fleet assets will improve the overall state of good repair and well as increase system reliability.

Associated Capital Maintenance Items, Shop & Misc. Equipment, FY 2022 - FY 2025, Section 5307, 5339 and/or other funds to be used for the replacement and or expansion of the Authority's equipment inventory including but not limited to: spare engines, new farebox system (FY2024), on bus video monitors, transmissions, tire re-grooving equipment, continuation of the replacement of vehicle equipment and office equipment, copiers, phone systems, cash registers, money counting equipment, office furniture for the downtown transfer center, garage and main office to ensure the Authority operates in an efficient method. Specific items will be identified in grant applications based on needs.

Misc. ADP Hardware and/or Software, FY 2022 - FY 2025, Section 5307, 5339 and/or other funds to be used for the replacement and or expansion of the Authority's existing computer hardware and software systems including but not limited to: on bus video monitors, network systems, printers, standalone computers, portable computers, fleet fueling systems, automated notification system for paratransit and other computerized systems in Administration, Operations and Maintenance Divisions.

Misc. Communications Equipment, FY 2022 - FY 2025, Section 5307 and/or other funds to be used for the replacement and or expansion of the Authority's existing communications equipment systems both on authority vehicles and in our facilities; included but not limited to radios, modems, routers, etc., and other communications devices to improve efficiencies and passenger amenities.

Misc. Renovations, FY 2022 - FY 2025, Section 5307, 5339 and/or other funds secured by KVRTA or State of West Virginia for renovation and maintenance of the facilities located at 1550 Fourth Avenue and 140 Laidley Street to ensure the facilities are kept up to code and provide a safe and efficient working environment. KVRTA has programmed funding annually for repairs and renovations to its existing facilities which were constructed in the 1950's. Projects under consideration are improved lighting, replacement of doors, upgrading ventilation, installing catwalks on above ground fuel tanks, carpeting, painting facilities, etc. Specific items will be identified in grant applications based on needs.

Passenger Shelters & Station Improvements, FY 2022 - FY 2025, Section 5307, 5339 and/or other funds secured by KVRTA or State of West Virginia for the replacement, renovation or expansion of the Authorities bus shelters and stations located throughout our service area. KVRTA will continue the upgrading of passenger waiting areas by purchasing additional passenger shelters, benches and installing new regular and electronic route/passenger information signage throughout the system using both 5307 & 5339 funds. Specific items will be identified in grant applications based on needs.

Purchase Surveillance & Security Equipment, FY 2022 - FY 2025 Section 5307, 5339 and/or other funds for the replacement and or expansion of existing surveillance and security equipment currently employed by the Authority to ensure passenger and employee safety throughout the system. KVRTA has programmed funding annually for replacement cameras (on buses and in facilities), recording equipment, upgrades to the security system, video monitors, purchase of automated door entry system for the downtown transfer center and 1550 Fourth Ave. facility and any equipment needed to secure facilities. Specific items will be identified in grant applications based on needs.

Kanawha Valley Regional Transportation Authority (KVRTA) - Charleston, WV 2022 - 2025 Transportation Improvement Plan
MPO - Region III - Regional Intergovernmental Council (RIC)

				2021 (Actual)		2022		2023		2024		2025		2026	
Project Description	**Source**	***Fed. (1000's)***	***Local (1000's)***	**Federal**	**Local**	**Federal**	**Local**	**Federal**	**Local**	**Federal**	**Local**	**Federal**	**Local**	**Federal**	**Local**
Operating Assist.(Salaries/Wages & Fringes)	5307	*9,700.0*	*9,700.0*	***Cares Act Funds***		***Rescue Act Funds***		2,500.0	2,500.0	2,500.0	2,500.0	2,400.0	2,400.0	2,300.0	2,300.0
Rolling Stock	5307	6,555.1	1,638.7	2,541.6	635.3	1,613.5	403.4	0.0	0.0	800.0	200.0	800.0	200.0	800.0	200.0
Rolling Stock	5339	2,850.8	712.7	988.3	247.1	662.5	165.6	420.0	105.0	180.0	45.0	120.0	30.0	480.0	120.0
Purchase Support Vehicles	5307	*22.4*	*5.6*	22.4	5.6										
Purchase Support Vehicles	*5339*	*74.4*	*18.6*			22.4	5.6			24.0	6.0			28.0	7.0
Planning Assistance	5307	*20.0*	*5.0*					20.0	5.0						
Associated Capital Items	5307	*136.0*	*34.0*	44.0	11.0	32.0	8.0	16.0	4.0	16.0	4.0	16.0	4.0	12.0	3.0
Capital Lease ADP/Software	5307	*0.0*	*0.0*												
ADP/Hardware and or Software	5307	*105.0*	*26.3*	25.0	6.3	40.0	10.0	40.0	10.0						
Communications Equipment	5307	*80.0*	*20.0*									80.0	20.0		
Garage and Preventative Maint. Equip	5307	*120.2*	*30.0*	20.2	5.0	20.0	5.0	20.0	5.0	20.0	5.0	20.0	5.0	20.0	5.0
Construction & Renovations	5307	*20.0*	*5.0*			20.0	5.0								
Bus Stations/Stops/Terminals	5307	*145.6*	*36.4*	125.6	31.4			20.0	5.0						
Surveillance / Security Equipment	5307	*120.0*	*30.0*	60.0	15.0	12.0	3.0	12.0	3.0	12.0	3.0	12.0	3.0	12.0	3.0
Totals		19,949.5	12,262.3	3,827.1	956.7	2,422.4	605.6	3,048.0	2,637.0	3,552.0	2,763.0	3,448.0	2,662.0	3,652.0	2,638.0

Submitted to RIC
August 17, 2021

			2021 (Actual)		*2022*		*2023*		*2024*		*2025*		*2026*	
Source	***Fed. (1000's)***	***Local (1000's)***	**Federal**	**Local**	**Federal**	**Local**	**Federal**	**Local**	**Federal**	**Local**	**Federal**	**Local**	**Federal**	**Local**
5307	9,700	9,700	0	0	0	0	2,500	2,500	2,500	2,500	2,400	2,400	2,300	2,300
5307	6,578	1,644	2,564	641	1,614	403	0	0	800	200	800	200	800	200
5307	747	187	275	69	124	31	128	32	48	12	128	32	44	11
5339	2,925	731	988	247	685	171	420	105	204	51	120	30	508	127
	19,950	12,262	3,827	957	2,422	606	3,048	2,637	3,552	2,763	3,448	2,662	3,652	2,638

SECTION 4

FEDERAL HIGHWAY FUNDING SUMMARY BY TYPE FY 2022 - 2025					
FUNDING TYPE	**2022**	**2023**	**2024**	**2025**	**TOTAL**
KANAWHA COUNTY					
CMAQ					$ -
HSIP					$ -
HWI-BR	20,000,000	17,661,934			$ 37,661,934
NHPP	19,921,200	3,640,000	11,727,200	3,505,600	$ 38,794,000
NHPP-EXEMPT					$ -
NRT		60,000	110,000		$ 170,000
OTHER					$ -
OTHER-FED					$ -
RR/HWY XI					$ -
STBG					$ -
STBG <5K POP					$ -
STBG 5K-50K		1,600,000			$ 1,600,000
STBG 50-200K POP	3,888,700		2,358,400	654,000	$ 6,901,100
STP					$ -
STP-OFF					$ -
TAP	382,200	510,218			$ 892,418
TOTAL	**$44,192,100**	**$23,472,152**	**$14,195,600**	**$4,159,600**	$86,019,452
PUTNAM COUNTY					
CMAQ					$ -
HSIP	115,200				$ 115,200
HWI-BR	20,000,000	20,000,000			$ 40,000,000
NHPP	3,430,000	6,000,000	9,520,435	50,400	$ 19,000,835
NHPP-EXEMPT		2,400,000			$ 2,400,000
NRT					$ -
OTHER					$ -
OTHER-FED					$ -
STBG	200,000				$ 200,000
STBG <5K POP	768,000	273,600	90,000		$ 1,131,600
STBG 5K-50K		1,161,600		561,600	$ 1,723,200
STBG 50-200K POP					$ -
STBG-FLEX			720,000		$ 720,000
STBG-TMA	312,000	220,800			$ 532,800
STP					$ -
STP-OFF					$ -
STP-TMA					$ -
TAP	900,000	300,000	294,650		$ 1,494,650
TAP-TMA					$ -
TOTAL	**$25,725,200**	**$30,356,000**	**$10,625,085**	**$612,000**	$ 67,318,285
DISTRICTWIDE					
HSIP	1,291,399				$ 1,291,399
NHPP		1,200,000			$ 1,200,000
STBG	227,500				$ 227,500
STBG-OFF					$ -
TOTAL	**$1,518,899**	**$1,200,000**	**$0**	**$0**	$ 2,718,899

KVRTA - Charleston, WV - FY 2022 - 2026 Transportation Improvement Program - Transit Projects

Submitted to RIC 08/17/2021

Actual

FUNDING PROGRAM	2021	2022	2023	2024	2025	2026
Total Federal Programed - 5307	2,752.1	1,737.5	2,628.0	3,348.0	3,328.0	3,144.0
Total Federal Programed - 5339	267.8	684.9	420.0	204.0	120.0	508.0
COVID Relief	9,785.5	7,426.9	0.0	0.0	0.0	0.0
Total Local Programed	956.7	605.6	2,637.0	2,763.0	2,662.0	2,638.0
Total Funds Programed	***13,762.1***	***10,454.9***	***5,685.0***	***6,315.0***	***6,110.0***	***6,290.0***

Sources of Funding

Carryover 5307 Funding from prior years	0.0	0.0	1,062.5	1,290.5	798.5	326.5
New FFY 5307 Apportionment	2752.1	2,800.0	2,856.0	2,856.0	2,856.0	2,856.0
CRRSSA Act (Operating only)	2,007.1	0.0	0.0	0.0	0.0	0.0
ARP Act (Operating only)	0.0	7,426.9	0.0	0.0	0.0	0.0
Carryover 5339 (capital only)	0.0	697.0	302.6	173.1	262.5	438.8
5339 (Capital only)	290.5	290.5	290.5	293.4	296.3	299.3
5339 (Capital Only WVDPT pass-thru grant)	430.0	0.0	0.0	0.0	0.0	0.0
Federal Funds Available	**5,479.7**	**11,214.4**	**4,511.6**	**4,613.0**	**4,213.3**	**3,920.6**

KVRTA Local Match Required	**956.7**	**605.6**	**2,637.0**	**2,763.0**	**2,662.0**	**2,638.0**
Add. Funding From Capital Reserve						
Federal Carryover Unrestricted (5307)	0.0	1,062.5	1,290.5	798.5	326.5	38.5
Federal Carryover Capital Only (5339)	697.0	302.6	173.1	262.5	438.8	230.1
Total Carryover	***697.0***	***1,365.1***	***1,463.6***	***1,061.0***	***765.3***	***268.6***

FEDERAL TRANSIT FUNDING SUMMARY BY CATEGORY (1,000'S)

August 17, 2021

SECTION 5

Safety Performance Targets adopted by the State of West Virginia and the BCKP Regional Intergovernmental Council

1. Number of fatalities

Safety Performance Measure	Goal	Safety Performance Target Year	2018	2019	2020	2021	2022
Fatalities	50% Reduction by 2030 (from 2009)	Target to Reach Goal	281.8	274.2	271.4	270.4	262.1

2. Number of serious injuries

Safety Performance Measure	Goal	Safety Performance Target Year	2018	2019	2020	2021	2022
Serious Injuries	66% Reduction by 2030 (from 2013)	Target to Reach Goal	1211.3	1123.5	1040.1	959.3	926.4

3. Fatality rate per hundred million vehicle miles traveled (HMVMT)

Safety Performance Measure	Goal	Safety Performance Target Year	2018	2019	2020	2021	2022
Fatality Rate	50% Reduction by 2030 (from 2009)	Target to Reach Goal	1.456	1.470	1.465	1.568	1.558

4. Injury rate per hundred million vehicle miles traveled (HMVMT)

Safety Performance Measure	Goal	Safety Performance Target Year	2018	2019	2020	2021	2022
Serious Injury Rate	66% Reduction by 2030 (from 2013)	Target to Reach Goal	6.036	5.629	5.326	5.943	5.634

5. Number of non-motorized fatalities & serious injuries

Safety Performance Measure	Goal	Safety Performance Target Year	2018	2019	2020	2021	2022
Bike & Ped Fatalities & Serious Injuries	66% Reduction by 2030 (from 2013)	Target to Reach Goal	89.2	91.6	91.5	86.1	80.9

Pavement and Bridge (PM2) and System Performance/Freight/CMAQ (PM3) Performance Targets adopted by the State of West Virginia and the BCKP Regional Intergovernmental Council

Table 3 Performance Trend and Target Summary

Performance Measure	Baseline Performance (2017)	2-Year Performance (2019)	2-Year Target (2019)	Significant Progress (2019)	4-Year Target (2021)	4-Year Adjustment (2021)
Percentage of Pavements of the Interstate System in Good Condition	73.4%	80.6%			75.0%	
Percentage of Pavements of the Interstate System in Poor Condition	0.1%	0.0%			4.0%	
Percentage of Pavements of the Non-Interstate NHS in Good Condition	40.9%	43.0%	40.0%	Yes	45.0%	
Percentage of Pavements of the Non-Interstate NHS in Poor Condition	1.2%	2.0%	5.0%	Yes	5.0%	
Percentage of NHS Bridges Classified as in Good Condition	13.9%	11.6%	14.0%	No	16.0%	**11%**
Percentage of NHS Bridges Classified as in Poor Condition	11.9%	13.5%	10.0%	No	10.0%	**13%**
Percent of the Person-Miles Traveled on the Interstate That Are Reliable	99.8%	99.1%	98.0%	Yes	96.0%	
Percent of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable	91.9%	93.7%			87.0%	
Truck Travel Time Reliability (TTTR) Index	1.21	1.28	1.25	No	1.30	**1.40**
Total Emission Reductions: PM2.5	0.092	0.122	0.092	Yes	0.092	
Total Emission Reductions: PM10	0.000	0.133	0.000	Yes	0.000	

Kanawha Valley Regional Transportation Authority (KVRTA) Safety Performance Targets for Bus Service

Safety Performance Category	Target
Fatalities (total number of NTD-reportable fatalities and rate per total vehicle revenue miles by mode)	Less than .05 per 1,000,000 vehicle revenue miles
Injuries (total number of NTD-reportable injuries and rate per total vehicle revenue miles by mode)	Less than 10 major/minor injuries per 1,000,000 vehicle revenue miles
Safety events (total number of NTD-reportable events and rate per total vehicle revenue miles by mode)	Less than 10 major/minor reportable events per 1,000,000 vehicle revenue miles
System reliability (measured as revenue miles operated divided by the number of major mechanical failures)	Distance between Major Failures: Greater than 80,000 miles Distance between Minor Failures: Greater than 3,000 miles

Kanawha Valley Regional Transportation Authority (KVRTA) Safety Performance Targets for Demand Response Service

Safety Performance Category	Target
Fatalities (total number of NTD-reportable fatalities and rate per total vehicle revenue miles by mode)	Less than .05 per 200,000 vehicle revenue miles
Injuries (total number of NTD-reportable injuries and rate per total vehicle revenue miles by mode)	Less than 5 major/minor injuries per 250,000 vehicle revenue miles
Safety events (total number of NTD-reportable events and rate per total vehicle revenue miles by mode)	Less than 5 major/minor reportable events per 250,000 vehicle revenue miles
System reliability (measured as revenue miles operated divided by the number of major mechanical failures)	Distance between Major Failures: Greater than 80,000 miles Distance between Minor Failures: Greater than 3,000 miles

Category	Class	Performance Measure	2022 Target	2021 Actual	Action	Action Owner	Dependency	2020	Actual 2021	2022 Targets
Rolling Stock	12 Year/500K Miles	SGR %	96%	95%	Continue working with sub grantees to maintain robust maintenance program	WVDOT & Subgrantee	TAM Plan	99%	95%	96%
	10 Year/350K Miles	SGR %	80%	92%	Evaluate SGR of trolleys	Subgrantee		95%	78%	80%
	7 Year/200K Miles	SGR %	84%	82%	Evaluate SGR of trolleys and prioritize replacements for "bad" and "poor" rated vehicles	WVDOT & Subgrantee	TAM Plan	79%	82%	84%
	5 Year/150K Miles	SGR %	84%	83%	Prioritize replacements for "bad" and "poor" rated vehicles	WVDOT & Subgrantee	TAM Plan	88%	83%	84%
	4 Year/100K Miles	SGR %	81%	78%	Prioritize replacements for "bad" and "poor" rated vehicles	WVDOT & Subgrantee	TAM Plan	89%	78%	81%
					Enhance existing asset management tool to include PM reporting	WVDOT	AVIS			
					Conduct analysis of fleet maintenance practice for identified systems	WVDOT	WVDOT System Reviews			
Facility	Storage	SGR %	100%	100%	Maintain SGR for all facilities	WVDOT	WVDOT System Reviews AVIS	100%	100%	100%
	Transfer Center	SGR %	100%	100%				100%	100%	100%
Equipment	Support Vehicles	SGR %	78%	76%	Support vehicles not in consistent support service are brought into SGR or disposed	WVDOT & Subgrantee	WVDOT System Reviews AVIS	94%	76%	78%
	Maintenance Equip	SGR %	83%	82%	Maintain SGR for all equipment			71%	82%	83%

Definition of State of Good Repair (SGR)

WVDOT defines SGR as a system meeting the following criteria: --- All assets are functioning at their ideal capacity within their design life. --- The state's asset management system, AVIS, includes consistent, accurate and relatively current information on the status of each capital asset covered by the TAM. --- Each system has a maintenance program to ensure maintenance is performed per manufacturer requirements and intervals. ---No rolling stock assets are placed in revenue service with identified safety defects.

SECTION 6

Air Quality Conformity Analysis Report

Kanawha-Putnam 2018-2021 TIP and 2045 Regional Transportation Plan

National Ambient Air Quality Standards (NAAQS) Addressed:

- 1997 8-Hour Ozone (Maintenance)

Prepared By:

Regional Intergovernmental Council (RIC)
and
West Virginia Department of Transportation

Public Review: **August 28th – September 13th, 2018**
MPO Approval: **September 13th, 2018**

September 2018

Overview

This report provides an analysis of the air quality implications of the Regional Intergovernmental Council (RIC) 2018-2021 Transportation Improvement Program (TIP) and 2045 Long Range Transportation Plan (LRTP). The analysis demonstrates transportation conformity under the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS). The air quality conformity analysis reflects an assessment of the regionally significant, non-exempt transportation projects included in the TIP and LRTP.

This document ensures that the findings meet all current criteria established by the U.S. Environmental Protection Agency (EPA) for the applicable NAAQS. A conformity determination has been completed to provide a regional forecast of emissions based on planned air quality significant projects and the latest available planning assumptions.

Background on Transportation Conformity

Transportation conformity is a way to ensure that federal funding and approval are awarded to transportation activities that are consistent with air quality goals. Under the Clean Air Act (CAA), transportation and air quality modeling procedures must be coordinated to ensure that the TIP and the LRTP are consistent with the area's applicable State Implementation Plan (SIP). The SIP is a federally approved and enforceable plan by which each area identifies how it will attain and/or maintain the health-related primary and welfare-related secondary NAAQS.

In order to receive transportation funding and approvals from the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA), state and local transportation agencies must demonstrate that the plans, programs, or projects meet the transportation conformity requirements of the CAA as set forth in the transportation conformity rule. Under the transportation conformity rule, transportation plans are expected to conform to the applicable SIP in nonattainment or maintenance areas. The integration of transportation and air quality planning is intended to ensure that transportation plans, programs, and projects will not:

- Cause or contribute to any new violation of any applicable NAAQS.
- Increase the frequency or severity of any existing violation of any applicable NAAQS.
- Delay timely attainment of any applicable NAAQS, any required interim emissions reductions, or other NAAQS milestones.

The transportation conformity determination includes an assessment of future highway emissions for defined analysis years. Emissions are estimated using the latest available planning assumptions and available analytical tools, including EPA's latest approved on-highway mobile sources emissions model, the Motor Vehicle Emission Simulator (MOVES). The conformity determination provides a tabulation of the analysis results for applicable precursor pollutants, showing that the required conformity test was met for each analysis year.

Report Contents

This document includes a summary of the methodology and data assumptions used for the conformity analysis. As shown in **Exhibit 1**, attachments containing additional detail have been provided with the document. In addition, modeling input and output files have been reviewed by EPA Region III and the West Virginia Department of Environmental Protection (WVDEP).

EXHIBIT 1: SUMMARY OF ATTACHMENTS

Attachment	Title	Description
A	Project List	Provides a list of regionally significant highway projects that have been updated or added to LRTP
B	Air Quality Interagency Consultation and Data Checklist	Provides consultation meeting minutes and an air quality data checklist
C	Detailed Emission Results	Provides a detailed summary of emissions by roadway type, source type and emission process.
D	MOVES Sample Run Specification	Provides example MOVES data importer (XML) and run specification (MRS) files.

National Ambient Air Quality Standard Designations

The CAA requires the EPA to set NAAQS for pollutants considered harmful to public health and the environment. A nonattainment area is any area that does not meet the primary or secondary NAAQS. Once a nonattainment area meets the standards and additional redesignation requirements in the CAA [Section 107(d)(3)(E)], EPA will designate the area as a maintenance area.

The RIC MPO region (Kanawha and Putnam counties) is currently designated as part of the *Charleston, WV* maintenance area under both the 1997 8-hour ozone and 2006 24-hour $PM_{2.5}$ NAAQS. The region is in attainment of the 2008 8-hour ozone, 2015 8-hour ozone, and 2012 annual $PM_{2.5}$ NAAQS. Transportation conformity requires nonattainment and maintenance areas to demonstrate that all future transportation projects will not prevent an area from reaching its air quality attainment goals.

1997 and 2008 8-hour Ozone NAAQS

Ozone is formed by chemical reactions occurring under specific atmospheric conditions. Precursor pollutants that contribute to the formation of ozone include volatile organic compounds (VOC) and oxides of nitrogen (NO_X), both of which are components of vehicle exhaust. VOCs may also be produced through the evaporation of vehicle fuel, as well as by displacement of vapors in the gas tank during refueling. By controlling VOC and NO_X emissions, ozone formation can be mitigated. Both precursor pollutants are analyzed in the transportation conformity process.

The EPA published the 1997 8-hour ozone NAAQS on July, 18, 1997 (62 FR 38856), with an effective date of September 16, 1997. An area was in nonattainment of the 1997 8-hour ozone NAAQS if the 3-year average of the individual fourth highest air quality monitor readings, averaged over 8 hours throughout the day, exceeded the NAAQS of 0.08 parts per million (ppm). On May 21, 2013, the EPA published a rule revoking the 1997 8-hour ozone NAAQS, for the purposes of transportation conformity, effective one year after the effective date of the 2008 8-hour ozone NAAQS area designations (77 FR 30160).

The EPA published the 2008 8-hour ozone NAAQS on March 27, 2008 (73 FR 16436), with an effective date of May 27, 2008. EPA revised the ozone NAAQS by strengthening the standard to 0.075 ppm. Thus, an area is in nonattainment of the 2008 8-hour ozone NAAQS if the 3-year average of the individual fourth highest air quality monitor readings, averaged over 8 hours throughout the day, exceeds the NAAQS of 0.075 ppm. The Charleston, WV area was designated as an attainment area under the 2008 8-hour ozone NAAQS, effective July 20, 2012 (77 FR 30088).

On February 16, 2018 the D.C. Circuit reached a decision in *South Coast Air Quality Management District v. EPA*, Case No. 15-1115. In that decision, the court vacated major portions of the final rule that established procedures for transitioning from the 1997 ozone NAAQS to the stricter 2008 ozone NAAQS. While the implications of this ruling are being decided, this conformity determination addresses transportation conformity to the 1997 8-hour ozone NAAQS.

2006 24-Hour PM2.5 NAAQS

Fine particulate matter (PM2.5) can be emitted directly into the atmosphere (sources include exhaust and dust from brake and tire wear) or formed in the atmosphere by combinations of precursor pollutants (secondary formation). Sulfates and nitrates are two types of pollutants that contribute to secondary formation. Sulfate emissions are a result of power plant and industry emissions, while nitrate emissions result from automobiles, power plants, and other combustion sources. Scientific studies have shown a significant correlation between exposure to fine particulates and severe health issues such as heart disease, lung disease, and premature death.

On December 18, 2006, the EPA issued the 2006 PM2.5 standard that tightened the 24-hour fine particle standard from 65 µg/m3 to 35 µg/m3. As part of the 2012 $PM_{2.5}$ standard (issued January 15, 2013), the EPA affirmed the 24-hour $PM_{2.5}$ threshold set in 2006, maintaining a value of 35 µg/m3. The Charleston area (Kanawha and Putnam counties) was designated as a nonattainment area under the 2006 24-hour $PM_{2.5}$ standard. The area was redesignated to an attainment area on April 30, 2014.

In 2012, the West Virginia Department of Environmental Protection (WVDEP) initiated the process to redesignate the Charleston area to reflect a finding of insignificance for highway sources for the 2006 24-hour $PM_{2.5}$ standard. The redesignation request for a finding of mobile source insignificance was approved. The federal requirements—40 CFR 93.109(f)—stipulate that areas designated as attainment with SIP insignificant motor vehicle emissions findings are not required to satisfy a regional emissions analysis for §93.118 and/or §93.119 for a given pollutant/precursor and NAAQS. Instead, areas with SIP insignificance findings adopt a qualitative conformity determination for regional transportation plans and

TIPs. Although the area is designated as attainment and there is a finding of insignificance, this does not preclude RIC from complying with the other still-effective requirements of the transportation conformity rule, such as interagency consultations, hot spot analyses as necessary, latest planning assumptions, public participation, etc.

Interagency Consultation

As required by the federal transportation conformity rule, the conformity process includes a significant level of cooperative interaction among the federal, state, and local agencies. For this air quality conformity analysis, an interagency consultation conference call including EPA, FHWA, RIC, WVDEP and WVDOH was conducted on June 19, 2018 to review all input planning assumptions, methodologies and analysis years. **Exhibit 2** summarizes key decisions made by the interagency consultation group.

EXHIBIT 2: INTERAGENCY CONSULTATION DECISIONS

Item	Decision
Traffic Forecasts	Use of RIC TransCAD regional travel model as used for 2045 LRTP
EPA Emission Model	MOVES2014a
Ozone Conformity Test	Analysis for Kanawha and Putnam Counties Compare to 2018 Maintenance Plan budgets Analysis Years: 2018, 2025, 2035, 2045

Analysis Methodology and Data

This transportation conformity analysis was conducted using EPA's MOVES model. MOVES is an upgrade to EPA's modeling tools and replaces MOBILE6.2 as the official model for estimating emissions from highway vehicles for SIP emission inventories and transportation conformity (75 FR 9411), effective March 2, 2010. MOVES2014a has been used for this conformity determination and is the latest approved model version for SIP and transportation conformity purposes (79 FR 60343).

Planning assumptions are updated following EPA and FHWA joint guidance (EPA420-B-08-901) that clarifies the implementation of the latest planning assumption requirements in 40 CFR 92.110. This analysis utilizes the latest available traffic, vehicle fleet and environmental data to estimate regional highway emissions. The analysis methodology and data inputs for this analysis were developed through interagency consultation and used available EPA guidance documents that included:

- *Policy Guidance on the Use of MOVES2014 for State Implementation Plan Development, Transportation Conformity, and Other Purposes*, US EPA Office of Air and Radiation, EPA-420-B-14-008, July 2014.
- *MOVES2014 and MOVES2014a Technical Guidance: Using MOVES to Prepare Emission Inventories in State Implementation Plans and Transportation Conformity.* US EPA Office of Air and Radiation, and Office of Transportation and Air Quality, EPA-420-B-15-093, November 2015.

- *MOVES2014a User Guide*, US EPA Office of Transportation and Air Quality, EPA-420-B-15-095, November 2015.

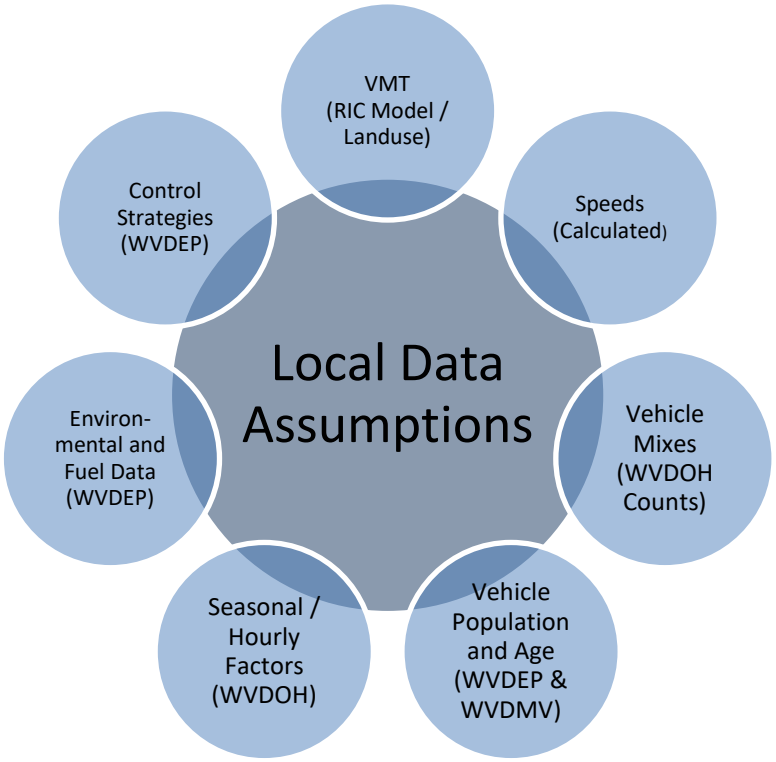
A mix of local and national default (internal to MOVES) data is used in the analysis. As illustrated in **Exhibit 3**, local data has been used for data items that have a significant impact on emissions, including: vehicle miles of travel (VMT), vehicle population, congested speeds, and vehicle type mix, as well as environmental and fuel assumptions. Local data inputs to the analysis process reflect the latest available planning assumptions using information obtained from the WVDOH, WVDEP, RIC and other local/national sources.

The methodology used for this analysis is consistent with resources used for past SIP inventories and other regional planning analyses. This includes the use of the regional travel demand model and custom post-processing software (PPSUITE) to calculate hourly speeds and prepare key traffic input files to the MOVES2014a emission model.

PPSUITE consists of a set of programs that perform the following functions:

- Analyzes highway operating conditions.
- Calculates highway speeds.
- Compiles VMT and vehicle type mix data.
- Prepares MOVES runs and processes MOVES outputs.

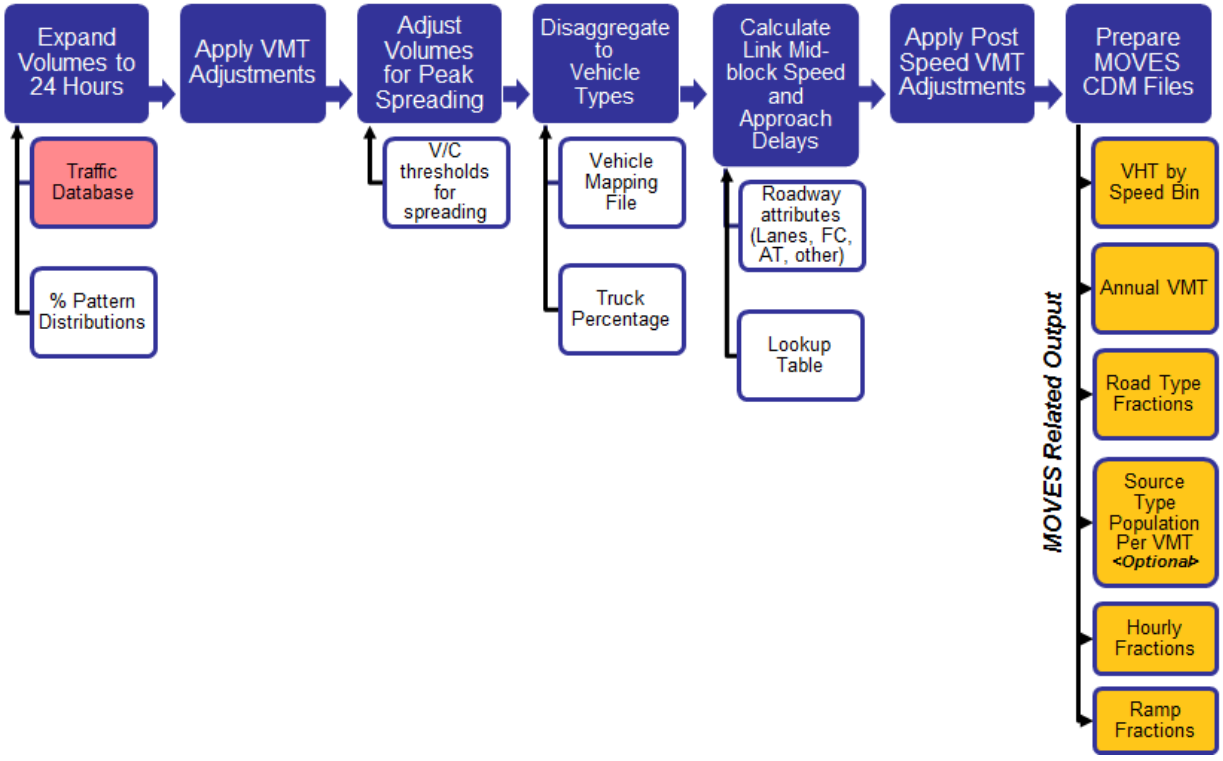
EXHIBIT 3: LOCAL DATA INPUTS USED FOR CONFORMITY RUNS



PPSUITE is a widely used and accepted tool for estimating speeds and processing emissions rates. The PPSUITE tool has been used for developing on-highway mobile source inventories in SIP revisions, control strategy analyses, and conformity analyses in other states. The software was developed to utilize accepted transportation engineering methodologies. The PPSUITE process is integral to producing traffic-related input files to the MOVES emission model. **Exhibit 4** summarizes the key functions of PPSUITE within the emission calculation process. Other MOVES input files are prepared externally to the PPSUITE software, including vehicle population, vehicle age, environmental and fuel input files.

The CENTRAL software is also used in this analysis. CENTRAL is a menu-driven software platform that executes the PPSUITE and MOVES processes in batch mode. The CENTRAL software allows users to execute runs for a variety of input options and integrates custom MySQL steps into the process. CENTRAL provides important quality control and assurance steps, including file naming and storage automation.

EXHIBIT 4: EMISSION CALCULATION PROCESS

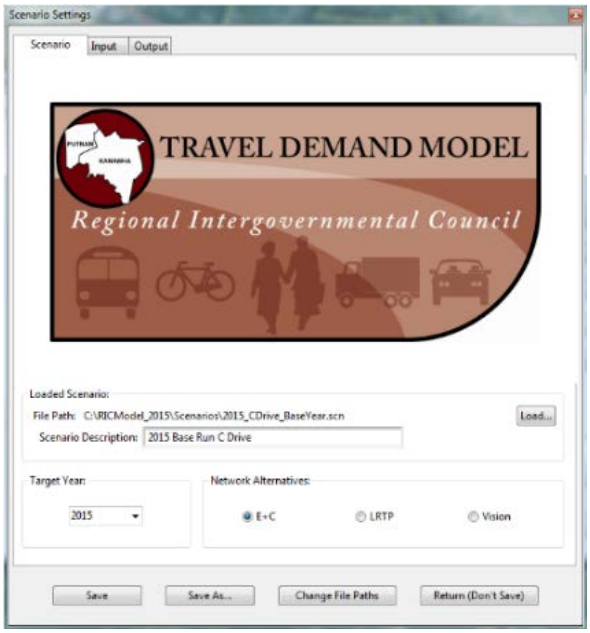


Description of Emission Modeling Input Data and Sources

A large number of inputs to MOVES are needed to fully account for the numerous vehicle and environmental parameters that affect emissions. These inputs include traffic flow characteristics, vehicle descriptions, fuel parameters, I/M program parameters and environmental variables. MOVES includes a default national database of meteorology, vehicle fleet, vehicle activity, fuel and emission control program data for every county; EPA, however, cannot certify that the default data is the most current or best available information for any specific area. As a result, local data, where available, is recommended for use when conducting a regional conformity analysis. A mix of local and default data is used for this analysis. These data items are discussed in the following sections.

Roadway Data

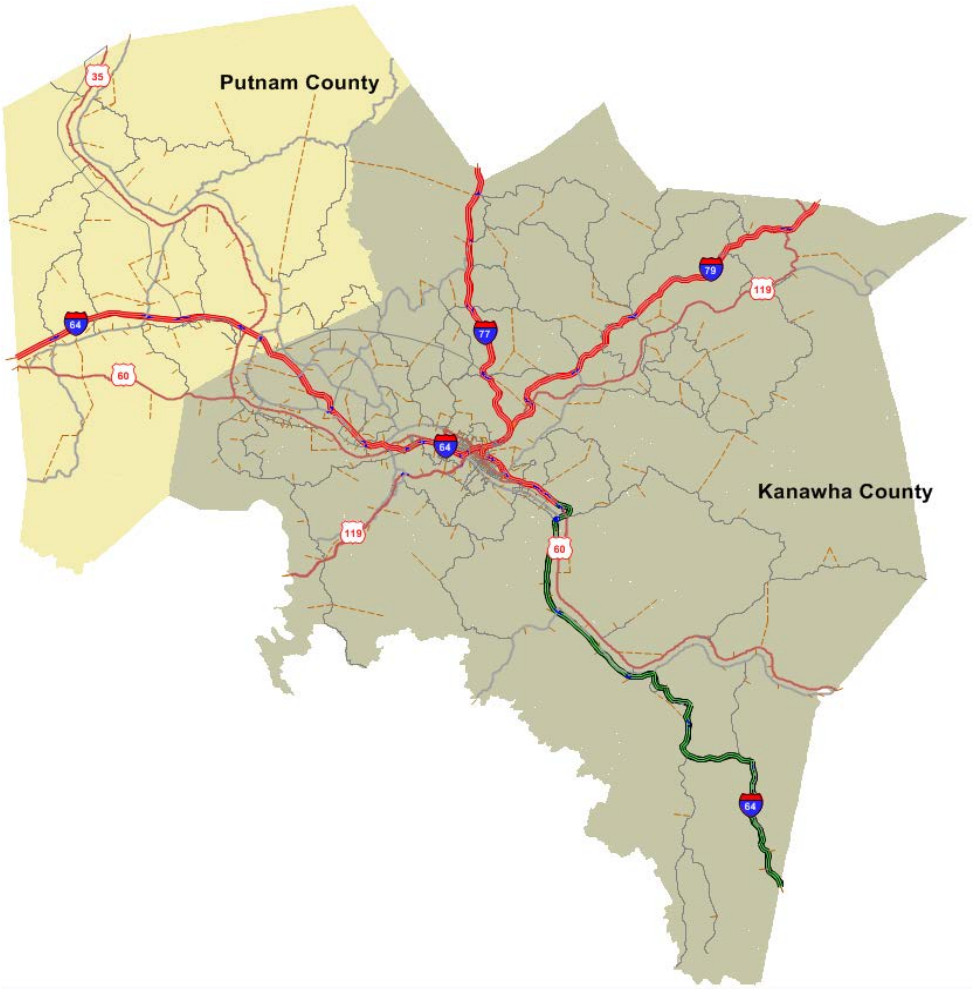
The roadway data input to emissions calculations for this conformity analysis is based on information from the RIC regional travel demand model. The travel model estimates roadway volumes based on input demographic forecasts and expected changes to the transportation roadway network. The RIC travel demand model follows the basic "four-step" travel demand forecasting process and utilizes the TransCAD (Version 7.0) software platform. Given the small portion of daily travel carried by the bus system in the Charleston region, a separate mode choice or transit model is not included. Auto-occupancy factors are used to convert person trips into vehicle trips.



The model is driven by socio-economic and transportation network data. These data include items such as zonal population, households, income, school enrollment, and employment by type for over 400 zones defined in the region.

Transportation network data, as illustrated in **Exhibit 5**, includes facility type, length, and speed limit for each of the highway links in the region. The highway network database contains attributes for each individual line in the line layer and includes all attributes needed to perform a traffic assignment.

EXHIBIT 5: RIC REGIONAL TRAVEL DEMAND MODEL



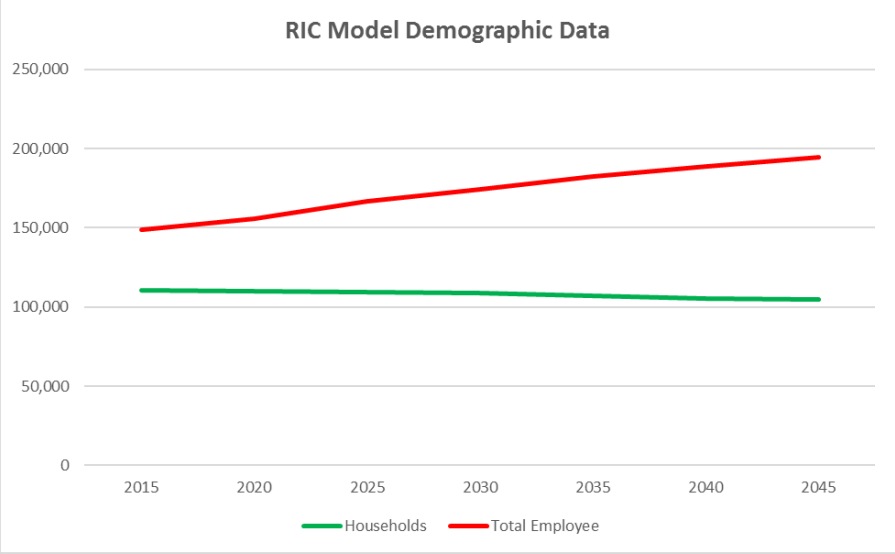
Demographic Forecasts

Forecast traffic volumes from the regional travel model are based on the demographics input to the model. Demographic data for the RIC model was obtained from several sources, including the U.S. Census, and InfoUSA (a commercial provider of employment data), RIC Staff, and the previous model socioeconomic data. The previous model utilized 2010 Census data to develop the 2010 household totals by TAZ. Information from the 2010 Census and the American Community Survey (ACS) helped in developing household totals by household size and number of workers. This information was used for the development of the 2015 socioeconomic data. **Exhibit 6** summarizes the demographics for the 2015 base year and 2045 horizon year of the LRTP. Demographics for other analysis years were forecasted using interpolation. **Exhibit 7** shows the demographic trends in the model region. The region is forecasted to have lower population but higher employment in future.

EXHIBIT 6: DEMOGRAPHIC GROWTH ASSUMPTIONS TO THE TRAVEL MODEL

County	Year	Population	Employment
Kanawha County	2015	194,750	128,834
	2045	176,855	161,106
Putnam County	2015	60,860	20,252
	2045	69,260	33,684
Total	**2015**	**255,610**	**149,086**
	2045	**246,115**	**194,790**

EXHIBIT 7: DEMOGRAPHIC TRENDS



The travel model network and assigned traffic volumes are processed by the PPSUITE post processor to prepare the traffic inputs needed to the MOVES emission model. The following information is extracted from the model for emission calculations:

- lanes
- roadway capacity
- distance
- weekday traffic volume
- area type code
- facility class code

The lane values, capacities, area type, and facility class are important inputs for determining the congestion and speeds for individual highway segments. The PPSUITE processing software allows for many additional variables other than those available in the regional travel model. Using these variables

improves the calculation of congested speeds. Such variables include information regarding free-flow speeds, traffic signal and control parameters, and volume-delay functions. This data is determined from lookup tables based on the model link's area type and facility class. Much of the lookup table data was developed from information contained in the Highway Capacity Manual.

Other Supporting Traffic Data

Other traffic data is used to adjust and disaggregate traffic volumes. Key sources used in these processes include the following:

- *Highway Performance Monitoring System (HPMS VMT)*: According to EPA guidance, baseline inventory VMT computed from the regional model must be adjusted to be consistent with HPMS VMT totals. The VMT contained in the HPMS reports are considered to represent average annual daily traffic (AADT), an average of all days in the year, including weekends and holidays. Adjustment factors were calculated for 2017 as part of the model's validation process. These factors are used to adjust locally modeled roadway data VMT to be consistent with the reported HPMS totals and are applied to all county and facility group combinations within the region. These adjustments are important for accounting for missing local roadway VMT that is not represented within the regional travel model.
- *Seasonal Factors*: The traffic volumes estimated from the regional travel demand model are adjusted to summer condition, using seasonal adjustment factors. July weekday seasonal factors were applied to the AADT for ozone analyses. Seasonal adjustment factors were obtained from the WVDOH. The factors are based on data processing of West Virginia's permanent traffic count stations. The seasonal factors are also used to develop the MOVES daily and monthly VMT fraction files, allowing MOVES to determine the portion of annual VMT that occurs in each month of the year.
- *Hourly Patterns*: Speeds and emissions vary considerably depending on the time of day. Therefore, it is important to estimate the pattern by which roadway volume varies by hour of the day. Pattern data is in the form of a percentage of the daily volumes for each hour. Distributions are provided for all the counties within the region and by each facility type grouping. This data was not directly available from WVDOH but was determined through an assessment of available data in other states. The same factors are also used to develop the MOVES hourly fraction file.

Vehicle Class Data

Emission rates within MOVES also vary significantly by vehicle type. MOVES produces emission rates for thirteen MOVES vehicle source input types. VMT, however, is input to MOVES by five HPMS vehicle groups (note that passenger cars and light trucks are grouped for input to MOVES2014a). **Exhibit 8** summarizes the distinction between each classification scheme.

EXHIBIT 8: MOVES SOURCE TYPES AND HPMS VEHICLE GROUPS

SOURCE TYPES	
11	Motorcycle
21	Passenger Car
31	Passenger Truck
32	Light Commercial Truck
41	Intercity Bus
42	Transit Bus
43	School bus
51	Refuse Truck
52	Single Unit Short-haul Truck
53	Single Unit Long-haul Truck
54	Motor Home
61	Combination Short-haul Truck
62	Combination Long-haul Truck

HPMS Class Groups	
10	Motorcycle
25	Passenger Car
25	Passenger/Light Truck
40	Buses
50	Single Unit Trucks
60	Combination Trucks

For this regional inventory, vehicle type pattern data was developed for each county and facility class combination based on WVDOH classification counts and internal MOVES defaults. As the first step, WVDOH truck count data was used to develop percentage splits of the total volume to the following vehicle groups: (1) autos and (2) heavy trucks and buses. MOVES default VMT by HPMS vehicle type (for Kanawha and Putnam counties) were then used to split the vehicle groups (autos and trucks) into the HPMS vehicle classes needed by MOVES.

The vehicle type percentages are also provided to the capacity analysis section of PPSUITE to adjust the speeds in response to trucks. That is, a given number of larger trucks take up more roadway space than a given number of cars, and this is accounted for in the speed estimation process by adjusting capacity using information from the Highway Capacity Manual.

Vehicle Ages

Vehicle age distributions are input to MOVES for each county by the thirteen source types. The distributions reflect the percentage of vehicles in the fleet up to 31 years old. The vehicle age distributions were prepared by WVDEP based on information obtained from West Virginia Division of Motor Vehicle (WVDMV) 2016 registration data. MOVES default values were used for source types 41, 42, 43, 51, 52, 53, 61, and 62, which includes all heavy trucks and buses.

Vehicle Population

The information on the vehicle fleet including the number and age of vehicles impacts forecasted start and evaporative emissions within MOVES. Similar to vehicle ages, MOVES requires the population of vehicles by the thirteen source type categories. The vehicle population data were prepared by WVDEP for year 2016. Since regional population and households are not forecast to increase, the base year vehicle population data was also used for all future analysis years.

Environmental and Fuel Characteristics

Information on environmental, fuel, vehicle technology and other control strategy assumptions were determined based on a review of MOVES2014a default information and other available local data. MOVES2014a default temperature and humidity values as well as MOVES2014a default fuel assumptions were used for the region. Key fuel assumptions include:

- RVP=9.7 for E10 fuel; RVP=8.7 for E15 fuel.
- A 95.7% market share of E10 and a 4.3% market share of E15 in 2018.
- A 90.2% market share of E10 and a 9.8% market share of E15 in 2025.
- A 74.7% market share of E10 and a 25.3% market share of E15 in 2035.
- A 61.9% market share of E10 and a 38.1% market share of E15 in 2045.

Other Vehicle Technology and Control Strategies

West Virginia does not have a vehicle inspection maintenance program and there are no state vehicle technology strategies included in the highway emissions inventory. Current federal vehicle emissions control and fuel programs are incorporated into the MOVES2014a software. These include the National Program standards covering model year vehicles through 2025. Modifications of default emission rates are required to reflect the early implementation of the National Low Emission Vehicle Program (NLEV) program in West Virginia. To reflect these impacts, EPA has released instructions and input files that can be used to model these impacts. This inventory utilized the October 2014 version of the files (https://www.epa.gov/moves/tools-develop-or-convert-moves-inputs).

Analysis Process Details

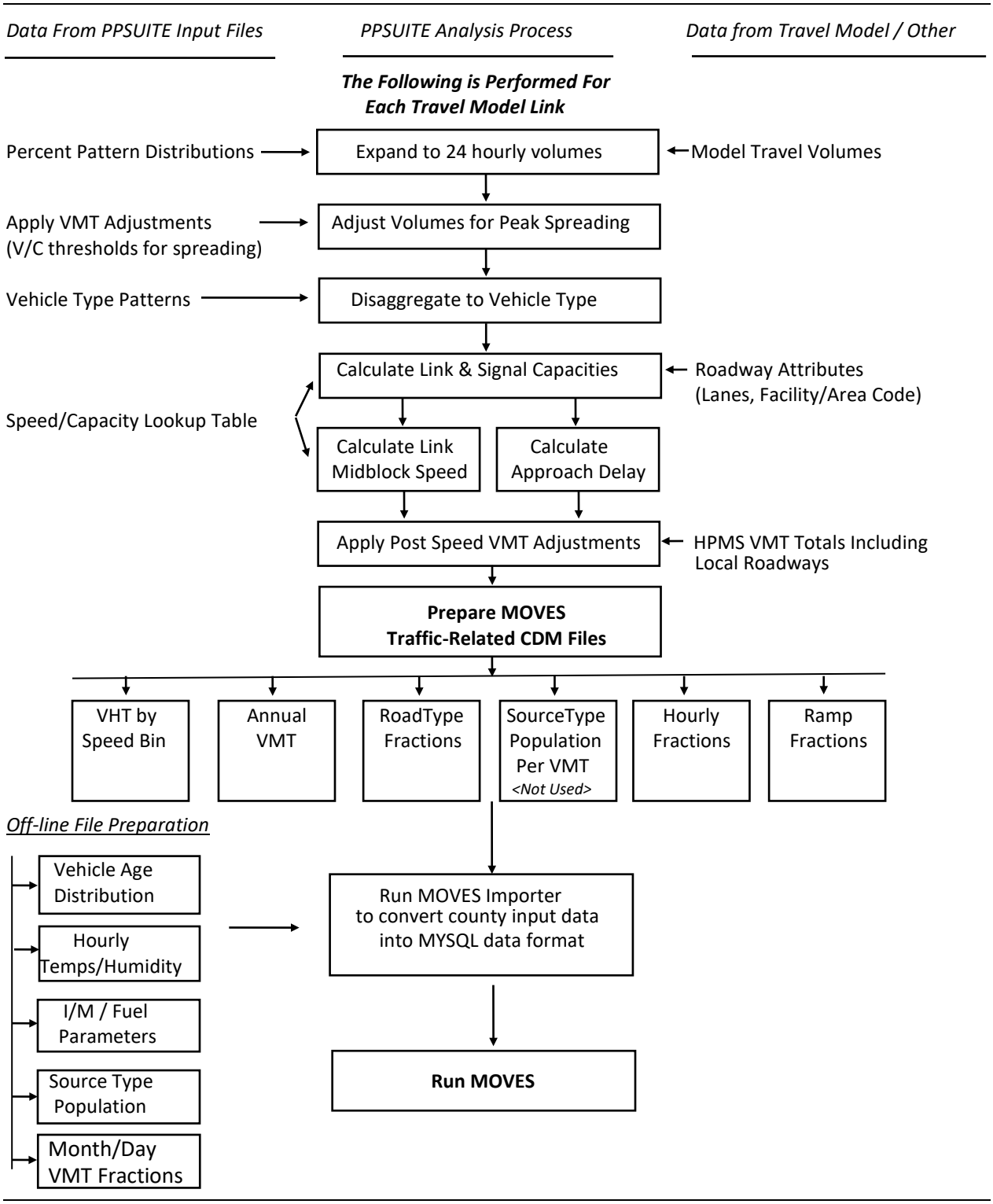
The previous sections have summarized the input data used for computing speeds and emission rates for this conformity analysis. This section explains how PPSUITE and MOVES use that input data to produce emission estimates. **Exhibit 9** provides a more detailed overview of the PPSUITE analysis procedure using the available traffic data information described in the previous section.

VMT Preparation

Producing an emissions inventory with PPSUITE requires a process of disaggregation and aggregation. Data is available and used on a very small scale – individual travel model roadway segments for each of the 24 hours of the day. This data needs to be processed individually to determine the distribution of vehicle hours of travel (VHT) by speed and then aggregated by vehicle class to determine the input VMT to the MOVES emission model. Key steps in the preparation of VMT include:

- *Assemble Travel Model Link VMT* - The RIC regional travel model contains the roadway links, distances and travel volumes needed to estimate VMT. The PPSUITE software processes each link by simply multiplying the assigned travel volume by the distance to obtain VMT.
- *Disaggregate to Hours* - The traffic volumes are distributed to each hour of the day. This allows for more accurate speed calculations (effects of congested hours) and allows PPSUITE to prepare the hourly VMT and speeds for input to MOVES.
- *Peak Spreading* - After dividing the daily volumes to each hour of the day, PPSUITE identifies hours that are unreasonably congested. For those hours, PPSUITE then spreads a portion of the volume to other hours within the same peak period, thereby approximating the "peak spreading" that normally occurs in such over-capacity conditions. This process also helps prevent hours with unreasonably congested speeds that may impact emission calculations.
- *Disaggregation to Vehicle Types* - EPA requires VMT estimates to be prepared by source type, reflecting specific local characteristics. The hourly volumes are disaggregated to the HPMS MOVES vehicle groupings based on WVDOH vehicle classification count data in combination with MOVES defaults as described in the previous section.
- *Apply HPMS VMT Adjustments* - Volumes must also be adjusted to account for differences with the HPMS VMT totals, as described previously. VMT adjustments are provided as input to PPSUITE and are applied to each of the roadway segment volumes. These adjustments were developed from reported HPMS VMT totals for 2017. The VMT adjustments are applied to all analysis year runs. The VMT added or subtracted to the travel model links assume the speeds calculated using the original volumes for each roadway segment for each hour of the day.
- *Apply Seasonal Adjustments* – PPSUITE adjusts the traffic volumes to the appropriate analysis season. These traffic volumes are assembled by PPSUITE and extrapolated over the course of a year to produce the annual VMT file input to MOVES.

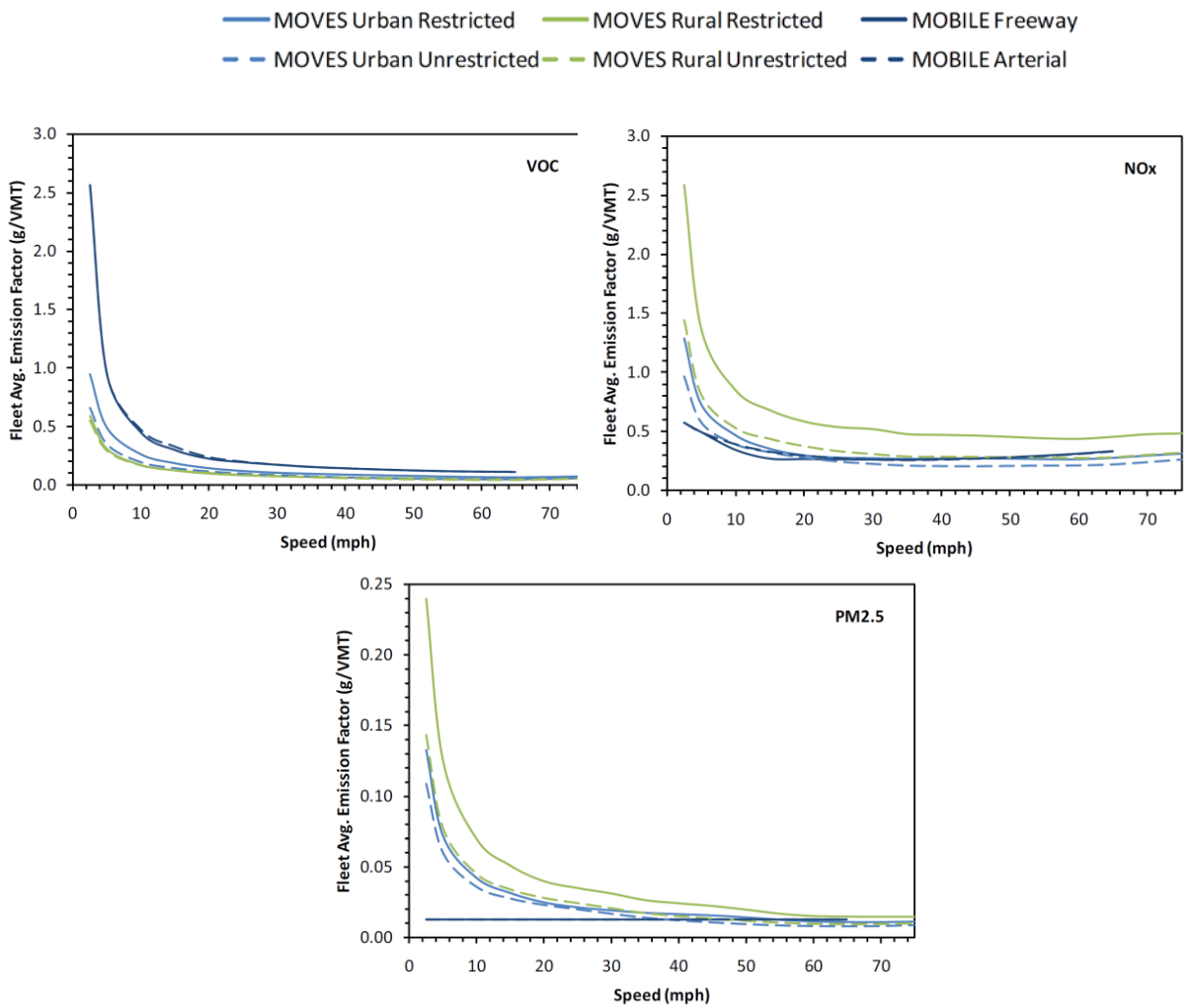
EXHIBIT 9: PPSUITE SPEED/EMISSION ESTIMATION PROCEDURE



Speed Estimation

Emissions for many pollutants (including VOC and NO_X) vary significantly with travel speed. VOC emissions generally decrease as speed increases, while NO_X emissions decrease at low speeds and increases at higher speeds, as illustrated in **Exhibit 10**. Because emissions are so sensitive to speed changes, EPA recommends special attention be given to developing reasonable and consistent speed estimates. EPA also recommends that VMT be disaggregated into subsets that have roughly equal speeds, with separate emission factors for each subset. At a minimum, speeds should be estimated separately by road type.

EXHIBIT 10: EMISSION FACTOR VS. SPEED VARIANCES (VOC, NOX, AND $PM_{2.5}$)



Source: Figure 3 from Implications of the MOVES2010 Model on Mobile Source Emission Estimates, Air & Waste Management Association, July 2010.

The computational framework used for this analysis meets and exceeds the recommendation above relating to speed estimates. Speeds are individually calculated for each roadway segment and hour. Rather than accumulating the roadway segments into a particular road type and calculating an average speed, each individual link hourly speed is represented in the MOVES vehicle hours of travel (VHT) by a speed bin file. This MOVES input file allows the specification of a distribution of hourly speeds. For example, if 5% of a county's arterial VHT operates at 5 mph during the AM peak hour and the remaining 95% operates at 65 mph, this can be represented in the MOVES speed input file. For the roadway vehicle emissions calculations, speed distributions are input to MOVES by road type and source type for each hour of the day.

To calculate speeds, PPSUITE first obtains initial capacities (i.e., how much volume the roadway can serve before heavy congestion) and free-flow speeds (speeds assuming no congestion) from a speed/capacity lookup table. As described previously, this data contains default roadway information indexed by the area and facility type codes. For areas with known characteristics, values can be directly coded to the database and the speed/capacity default values can be overridden. For most areas where known information is unavailable, the speed/capacity lookup tables provide valuable default information regarding speeds, capacities, signal characteristics, and other capacity adjustment information used for calculating congested delays and speeds. The result of this process is an estimated average travel time for each hour of the day for each highway segment. The average travel time multiplied by traffic volume produces vehicle hours of travel (VHT).

Developing the MOVES Traffic Input Files

The PPSUITE software is responsible for producing the following MOVES input files during any analysis run:

- VMT by HPMS vehicle class.
- VHT by speed bin.
- Road type distributions.
- Hourly VMT fractions.
- Ramp fractions.

These files are text formatted files with a *.csv extension. The files are provided as inputs within the MOVES County Data Manager (CDM) and are described below:

- *VMT Input File*: VMT is the primary traffic input affecting emission results. The roadway segment distances and traffic volumes are used to prepare estimates of VMT. PPSUITE performs these calculations and outputs the MOVES annual VMT input file to the County Data Manager (CDM). The annual VMT is computed by multiplying the travel model adjusted VMT by 365 days (366 days in a leap year).
- *VHT by Speed Bin File*: As described in the previous section, the PPSUITE software prepares the MOVES VHT by speed bin file, which summarizes the distribution of speeds across all links into each of the 16

MOVES speed bins for each hour of the day by road type. This robust process is consistent with the methods and recommendations provided in EPA's technical guidance for the MOVES2014a model (http://www.epa.gov/otaq/models/moves/) and ensures that MOVES emission rates are used to the fullest extent.

- *Road Type Distributions*: Within MOVES, typical drive cycles and associated operating conditions vary by roadway type. MOVES defines five different roadway types as follows:

  1 Off-Network.
  2 Rural Restricted Access.
  3 Rural Unrestricted Access.
  4 Urban Restricted Access.
  5 Urban Unrestricted Access.

  For this analysis, the MOVES road type distribution file is automatically generated by PPSUITE using defined equivalencies. The off-network road type includes emissions from vehicle starts, extended idling, and evaporative emissions. Off-network activity in MOVES is primarily determined by the Source Type Population input.

- *Ramp Fractions*: The RIC regional travel model has separate facility classes (urban and rural) for ramps. As a result, PPSUITE assembles ramp VMT for these links and prepares the Ramp Fraction file for input to MOVES.

MOVES Runs

After computing speeds and aggregating VMT and VHT, PPSUITE prepares traffic-related inputs needed to run EPA's MOVES software. Additional required MOVES inputs are prepared externally from the processing software and include temperatures, I/M program parameters, fuel characteristics, vehicle fleet age distributions, and source type population. The MOVES county importer is run in batch mode. This program converts all data files into the MySQL format used by the MOVES model. At that point, a MOVES run specification file (*.mrs) is created which specifies options and key data locations for the run. The MOVES run is then executed in batch mode. A summary of key MOVES run specification settings is shown in **Exhibit 11**. MOVES can be executed using either an inventory or rate-based approach. For this analysis, MOVES is applied using the *inventory-based* approach. Using this approach, actual VMT and population are provided as inputs to the model; MOVES is responsible for producing the total emissions for the region.

EXHIBIT 11: MOVES RUN SPECIFICATION FILE PARAMETER SETTINGS

Parameter	Setting
MOVES Default Database Version	11/17/2017
Scale	COUNTY
Analysis Mode	Inventory
Time Span	**July Weekday Runs:** July month, Weekday, 24 hours
Time Aggregation	Hour
Geographic Selection	54039 – Kanawha County 54079 – Putnam County
Vehicle Selection	All source types Gasoline, Diesel, CNG, E85
Road Type	All road types including off-network
Pollutants and Processes	VOC, NOx
Database selection	Early NLEV database
General Output	Units: Emission = grams Distance = miles Time = hours Energy = Million BTU
Output Emissions	Time = Hour, Emissions by Process ID, Source Type and Road Type

Conformity Analysis

A transportation conformity analysis of the current TIP and LRTP has been completed for the Charleston area. The analyses were performed according to the requirements of the Federal transportation conformity rule at 40 CFR Part 93, Subpart A. The analyses utilized the methodologies, assumptions and data as presented in previous sections. Interagency consultation has been used to determine applicable emission models, analysis years and emission tests.

Emission Tests

A SIP redesignation plan for the *Charleston, WV* nonattainment area (Kanawha and Putnam counties) was approved on August 10, 2006 under the 1997 8-hour ozone NAAQS (reclassifying the area to "Maintenance"). The SIP established 2009 and 2018 motor vehicle emission budgets (MVEBs) for the area. The MVEBs were subsequently revised using EPA's MOVES2010a emission model effective November 14, 2011 (76 FR 56975) and were corrected on July 11, 2018 (83 FR 32062). The ozone transportation conformity analysis has been conducted to evaluate emissions in comparison to the applicable ozone MVEBs as summarized in **Exhibit 12**.

EXHIBIT 12: 1997 8-HOUR OZONE MOTOR VEHICLE EMISSION BUDGETS

County / Pollutant	2009 Budget (tons/day)	2018 Budget (tons/day)
VOC	16.7	13.7
NOx	38.9	17.1

Analysis Years

Section 93.119(g) of the Federal Transportation Conformity Regulations requires that emissions analyses be conducted for specific analysis years as follows:

- The last year of the LRTP's forecast period.
- The attainment year of the standard if within timeframe of TIP and LRTP.
- An intermediate year or years such that if there are two years in which analysis is performed, the two analysis years are no more than ten years apart.

All analysis years were determined through the interagency consultation process. **Exhibit 13** provides the analysis years used for this conformity analysis.

EXHIBIT 13: TRANSPORTATION CONFORMITY ANALYSIS YEARS

Analysis Year	Description
2018	Budget Year
2025	Interim Year
2035	Interim Year
2045	Last Year of LRTP

Regionally Significant Highway Projects

For the purposes of conformity analysis, highway networks are created for each analysis year. For the horizon years, regionally significant projects from the LRTP were coded onto the networks. Detailed assessments were only performed for those new projects which may have a significant effect on emissions in accordance with 40 CFR Parts 51 and 93. Only those projects which would increase capacity or significantly impact vehicular speeds were considered. Projects such as bridge replacements and roadway restoration projects, which constitute the majority of the TIP and LRTP list, have been excluded from consideration since they are considered exempt under 40 CFR 93.126-127. A list of highway projects is shown in **Attachment A**.

Conformity Analysis Results

An emissions analysis has been completed for the 1997 8-hour ozone NAAQS. **Exhibit 14** summarizes the Charleston area ozone emission results for a summer weekday in each analysis year. All years are lower than the applicable conformity budgets established in the regional maintenance plan for the 1997 ozone NAAQS. A summary of MOVES input parameters is provided in **Attachment B**. A detailed emission summary is also provided in **Attachment C**. Example MOVES importer (XML) and run specification (MRS) files are provided in **Attachment D**.

EXHIBIT 14: OZONE EMISSION ANALYSIS RESULTS AND CONFORMITY TEST
(SUMMER WEEKDAY)

Pollutant	*2018 BUDGET (tons/day)*	*2018 (tons/day)*	*2025 (tons/day)*	*2035 (tons/day)*	*2045 (tons/day)*
VOC	***13.7***	*4.10*	*2.71*	*1.55*	*1.41*
NOX	***17.1***	*11.34*	*6.50*	*4.31*	*4.56*
Conformity Result		**Pass**	**Pass**	**Pass**	**Pass**

Conformity Determination

Financial Constraint

The planning regulations, Sections 450.322(b)(11) and 450.324(e), require the transportation plan to be financially constrained while the existing transportation system is being adequately operated and maintained. Only projects for which construction and operating funds are reasonably expected to be available are included. RIC, in conjunction with WVDOH, FHWA and FTA, has developed an estimate of the cost to maintain and operate existing roads, bridges and transit systems in the MPO region and have compared the cost with the estimated revenues and maintenance needs of the new roads over the same period. The TIP and LRTP have been determined to be financially constrained.

Public Participation

The TIP and LRTP have undergone the public participation requirements as well as the comment and response requirements according to the procedures established in compliance with 23 CFR part 450, the region's Public Participation Plan, and the Conformity SIP. The draft document was made available for a public review and comment period.

Conformity Statement

The conformity rule requires that the TIP and LRTP conform to the applicable SIP(s) and be adopted by the MPO/RPO before any federal agency may approve, accept, or fund projects. Conformity is determined by applying criteria outlined in the transportation conformity regulations to the analysis.

The TIP and LRTP for the RIC MPO area is found to conform to the applicable air quality SIP(s) or EPA conformity requirements. This finding of conformity positively reflects on the efforts of the MPO and its partners in meeting the regional air quality goals, while maintaining and building an effective transportation system.

Resources

MOVES model

Modeling Page within EPA's Office of Mobile Sources Website (http://www.epa.gov/omswww/models.htm) contains a downloadable model, MOVES users guide and other information.

Policy Guidance on the Use of MOVES2014 for State Implementation Plan Development, Transportation Conformity, and Other Purposes, US EPA Office of Air and Radiation, EPA-420-B-14-008, July 2014.

MOVES2014 and MOVES2014a Technical Guidance: Using MOVES to Prepare Emission Inventories in State Implementation Plans and Transportation Conformity. US EPA Office of Air and Radiation, and Office of Transportation and Air Quality, EPA-420-B-15-093, November 2015.

MOVES2014a User Guide, US EPA Office of Transportation and Air Quality, EPA-420-B-15-095, November 2015.

Traffic Engineering

Highway Capacity Manual, Transportation Research Board, presents current knowledge and techniques for analyzing the transportation system.

Highway Vehicle Inventory Glossary

AADT: Average Annual Daily Traffic, average of ALL days.

County Data Manager (CDM): User interface developed to simplify importing specific local data for a single county or a user-defined custom domain without requiring direct interaction with the underlying MySQL database.

Emission rate or factor: Expresses the amount of pollution emitted per unit of activity. For highway vehicles, usually in grams of pollutant emitted per mile driven.

FC: Functional code, applied in data management to road segments to identify their type (freeway, local, etc.).

Growth factor: Factor used to convert volumes to future years.

HPMS: Highway Performance Monitoring System

I/M: Vehicle emissions inspection/maintenance programs ensure that vehicle emission controls are in good working order throughout the life of the vehicle. The programs require vehicles to be tested for emissions. Most vehicles that do not pass must be repaired.

MOVES: The latest model EPA has developed to estimate emissions from highway vehicles.

Pattern data: Extrapolations of traffic patterns (such as how traffic volume on road segment types varies by time of day, or what kinds of vehicles tend to use a road segment type) from segments with observed data to similar segments.

PPSUITE: Post-Processor for Air Quality, a set of programs that estimate speeds and processes MOBILE emission rates.

Road Type: Functional code, applied in data management to road segments to identify their type (rural/urban highways, rural/urban arterials, etc.)

Source Type: One of thirteen vehicle types used in MOVES modeling.

VHT: Vehicle hours traveled.

VMT: Vehicle miles traveled. In modeling terms, it is the simulated traffic volumes times link length.

ATTACHMENT A

Project List

County	District	Project	Improvement	Planning Year	Analysis Year	Bond Project
Kanawha	1 (CL-8)	WV 622, I-64 to N of WV 62	Widen existing roadway from 3 to 5-lanes, I-64/Cross Lanes I/C to WV 62, Kanawha County - 0.8 mi	2036-2045	2025	YES
Kanawha	1	Oakwood Road Improvements (US 119 improvements from MacCorkle Ave to Jefferson Rd)	Construct new I/C on US 119 at Lucado Road; construct frontage roads (Add lanes, flyovers, I/C's, frontage roads, etc. along US 119)	Phases: 1-2025 2-2035 3-2045	2025	YES
Putnam	1	US 35 Paving and Interchange	Pave 14 miles of US 35 currently under a Grade and Drain projeict including a new I/C near Buffalo Bridge		2025	YES
Putnam	1 (PC-3)	I-64 Widening	Widen I-64 from US 35 to Nitro including new bridge across Kanawha River	2026-2035	2035	YES
	PC-6A	Teays Valley Rd (CR 33)	Widening	2036-2045	2045	
	KC-8A	Dupont Avenue (US 60)	Widening	2026-2035	2035	YES
	PC-8A	Charleston Road (WV 62)	Widening	2026-2035	2035	
	KC-9	Greenbrier St (WV 114)	Widening	2026-2035	2035	
	KC-U1	Institute Connector	New Location	2026-2035	2035	
	KC-7	Lens Creek Rd (WV 94)	Widening	2026-2035	2035	

ATTACHMENT B

Interagency Consultation / Air Quality Data Checklist Summary

RIC Metro Mobility Plan
Air Quality Conformity Analysis: Interagency Consultation Conference Call
Meeting Minutes
June 19, 2018 10:00 AM

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1. Attending

WVDOH and Michael Baker International (MBI) hosted the Interagency Consultation Group (ICG) conference call / webinar to kick-off the transportation conformity analysis on June 19, 2018 at 10AM. The purpose and goals for the meeting are to:

- Review ICG roles and responsibilities
- Review data collection efforts
- Review and approve latest planning assumptions
- Protocol for identifying Exempt, Non-exempt and Regionally Significant Projects
- Understanding of the conformity process and future review and public comment period requirements
- Discuss future Maintenance Plan Requirements

The participants on the call included:

Participant	Agency	Participant	Agency
Perry Keller	WVDOH	Kara Greathouse	RIC
Chris Kinsey		Randy Durst	WWW
David Fewell	WVDEP	Tracy Brown	
Laura Crowder		Saleem Salameh	KYOVA
Alanna Keller		Terri Sicking	
Chandra Inglis-Smith	FHWA-WV	Dave Moore	ODOT
Laura Toole	FHWA-OH	Mike Maleski	OEPA
Leigh Oesterling		Thomas Witt	KYDOT
Bernadette Dupont	FHWA-KY	Jim Frazier	MBI
Gregory Becoat	EPA Region 3	Dan Szekeres	
Michele DeAngelis	FTA-Region 3	Ying-Tzu Chung	
		Avinash Sinha	

2. Conformity Areas:

Five areas were identified in the FHWA guidance that are subject to transportation conformity for the 1997 Ozone NAAQS. All five areas have approved Maintenance Plans. MBI will perform the conformity analysis for:

- Charleston, WV
- Huntington-Ashland, WV-KY
- Parkersburg-Marietta, WV-OH

ODOT will perform the conformity analysis for:

- Steubenville-Weirton, OH-WV
- Wheeling, WV-OH

3. Conformity Areas and MVEBs

The ICG reviewed the motor vehicle emissions budgets (MVEB) as listed in the table below. For the multi-state areas, it was agreed that MBI will perform the analysis for the Ohio portion of WWW. The approved budget for Washington County, OH was added to the table below. For KYOVA, the Kentucky portion of the conformity analysis will be performed by KYOVA. MBI will assist as needed.

Area	MPO	Counties	Budget Year	VOC (tpd)	NOx (tpd)
Charleston	RIC	Kanawha	2009	16.7	38.9
		Putnam	2018	13.5	17.1
Huntington	KYOVA	Cabell	2009	7.4	14.0
		Wayne	2018	6.6	13.5
Parkersburg	W-W-W	Wood	2009	5.5	7.3
			2018	4.7	7.3
		Washington	2018	1.93	3.25
Weirton	BHJ	Brooke	2009	3.4	4.2
		Hancock	2018	1.9	3.9
Wheeling	Bel-O-Mar	Marshall	2009	10.4	9.1
		Ohio	2018	7.7	3.1

4. Conformity Tools and Models

The ICG reviewed the proposed analysis years required to meet the conformity guidance of the last year of the plan, intermediate years not more than 10 years apart, the attainment year and budget years in the timeframe of the TIP/plan. EPA Region 3 stated that 2018 is a required analysis year for all three MPOs as it is a budget year in the timeframe of the TIP. The following was approved by the ICG:

a. Analysis Years

RIC: 2018, 2025, 2035, 2045
KYOVA/WWW: 2018, 2020, 2030, 2040

b. EPA Emissions Model – MOVES2014a
c. MPO TRANSCAD models and roles
    a. RIC: MPO will provide the modeling setups for MBI to run the model.
    b. KYOVA/WWW: MPO model final assigned networks for each analysis year
    c. MBI's PPSUITE Pre/Post-Processing

5. Project Lists

The project lists include all TIP / Plan and State Road Bond projects that identify exempt and nonexempt projects with draft regionally significant project identified. The MPOs will review the lists and provide any adjustments/comments to WVDOH and MBI. The group discuss that KY and OH projects should be included in the list. Below are the draft regionally significant projects for each MPO.

RIC Projects

County	District	Project	Improvement	Planning Year	Analysis Year	Bond Project
Kanawha	1 (CL-8)	WV 622, I-64 to N of WV 62	Widen existing roadway from 3 to 5-lanes, I-64/Cross Lanes I/C to WV 62, Kanawha County - 0.8 mi	2036-2045	2025	YES
Kanawha	1	Oakwood Road Improvements (US 119 improvements from MacCorkle Ave to Jefferson Rd)	Construct new I/C on US 119 at Lucado Road; construct frontage roads (Add lanes, flyovers, I/C's, frontage roads, etc. along US 119)	Phases: 1-2025 2-2035 3-2045	2025	YES
Putnam	1	US 35 Paving and Interchange	Pave 14 miles of US 35 currently under a Grade and Drain projejct including a new I/C near Buffalo Bridge		2025	YES
Putnam	1 (PC-3)	I-64 Widening	Widen I-64 from US 35 to Nitro including new bridge across Kanawha River	2026-2035	2035	YES
	PC-6A	Teays Valley Rd (CR 33)	Widening	2036-2045	2045	
	KC-8A	Dupont Avenue (US 60)	Widening	2026-2035	2035	YES
	PC-8A	Charleston Road (WV 62)	Widening	2026-2035	2035	
	KC-9	Greenbrier St (WV 114)	Widening	2026-2035	2035	
	KC-U1	Institute Connector	New Location	2026-2035	2035	
	KC-7	Lens Creek Rd (WV 94)	Widening	2026-2035	2035	

6. Latest Planning Assumptions

MBI led the discussions to review each planning assumption for the ICG to approve. The planning assumptions included MOVES inputs, traffic data and identified local data inputs and national defaults. ODOT has protocol for inter-zonal VMT adjustments; MBI will incorporate the protocol when preparing HPMS VMT adjustments for Washington County, OH. The tables below show the latest planning assumptions approved for this conformity analysis.

Latest Planning Assumptions - MOVES

Data Item	Inputs Assumptions		
	Charleston, WV (RIC)	Huntington, WV (KYOVA)	Parkersburg, WV (WWW)
MOVES RunSpec			
MOVES Version	MOVES2014a		
MOVES Default Database	MOVESDB20161117		
Scale/Calulation Type	County Scale Inventory Run		
Analysis Counties	Kanawha (FIPS: 54039), Putnam (FIPS: 54079)	Cabell (FIPS:54011), Wayne (FIPS:54099)	Wood (FIPS:54107)
Analysis Years	2018, 2025, 2035, 2045	2018, 2020, 2030, 2040	2018, 2020, 2030, 2040
Analysis Days/Months	July Weekday		
Pollutants	VOC, NOx		
Stage II Refueling Emissions	Not Included		
Fuel Types	Gasoline, Diesel, CNG, E85		

Latest Planning Assumptions - Traffic

Data Item	Inputs Assumptions		
	Charleston, WV (RIC)	Huntington, WV (KYOVA)	Parkersburg, WV (WWW)
Traffic Data			
Highway Network	2018, 2025, 2035 and 2045 networks and setups to run model, socio-economic inputs/summary data	2018, 2020, 2030 and 2040 assigned networks and socio-economic inputs/summary data	2018, 2020, 2030 and 2040 assigned networks and socio-economic inputs/summary data
County HPMS VMT Adjustments	**Data request:** Latest available HPMS VMT Calculate AADT HPMS adjustments for 2018 (Ensure VMT is consistent with reported HPMS)		
Seasonal Adjustments	**Data request:** Monthly and daily seasonal adjustment factors Use July weekday seasonal factors to convert AADT to average July weekday traffic		
Vehicle Mixes	**Data request:** Truck count/vehicle mix data by functional class, by county MOVES VMT required by 5 HPMS vehicle classes. Use DOT truck count data to split model traffic volumes into auto and trucks, and use MOVES2014a default VMT distributions for the region to divide the two vehicle groups (auto and trucks) into MOVES 13 source types, which are recombined to the 5 HPMS vehicle classes.		

Latest Planning Assumptions – MOVES Inputs

Data Item	Inputs Assumptions		
	Charleston, WV (RIC)	Huntington, WV (KYOVA)	Parkersburg, WV (WWW)
MOVES Inputs			
Annual VMT	Calculated by PPSUITE from model / seasonal factors / vehicle mapping		
Avg. Hourly Speed Distribution	Calculated by PPSUITE (Minimum Speed = 2.5 mph)		
Road Type Distribution	Calculated by PPSUITE; a RoadType field must be added to the travel model network based on FC.		
Ramp Fraction	Calculated by PPSUITE (use ramp classes coded in model network) or use MOVES2014a defaults		
Month VMT Fractions	Factors to convert AADT to an average day in each month (Local data or MOVES default). Calculated based on seasonal adjustment factors.		
Day VMT Fractions	Calculated based on seasonal adjustment factors		
Hour VMT Fractions	Factors to disaggregate daily traffic volumes by hour for different roadway functional classes. Borrow hourly distributions from other region.		
Source Type Population	Data request: socio-economic data. 2016 Inputs provided by WVDEP --> Grow to future years by applying growth factors developed from socio-economic data (same growth factors for all source types)		Data request: socio-economic data. 2016 Inputs provided by WVDEP. Use 2016 data for all analysis years.
Vehicle Age Distribution	Source Types 11, 21, 31, 32 & 54: based on 2016 WV DMV Registration Data for the region; Source Types 41, 42, 43, 51, 52, 53, 61 & 62: use MOVES National Defaults.		
Fuel Parameters (Gasoline/Diesel/CNG/E85)	Use MOVES2014a defaults		
I/M Parameters	No I/M programs		
Temperatures/Humidity	Use MOVES2014a defaults		
Control Programs			
Early NLEV / ~~CALLEV~~	Include EPA provided MOVES override database for early NLEV implementation		
Stage II Refueling Parameters	Not Included		

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7. Data Collection Efforts

The data collection efforts are in process as MBI sent request to the MPOs, WVDOH and WVDEP. The group reviewed the status and pending data needed for the conformity analysis. With the addition of Washington County OH, MBI will send data requests to ODOT and OEPA for a list of data needs. MBI will continue to process the existing data to the formats needed for their PPSUITE process.

Still pending data items include:

- KYOVA will prepare and provide 2018 network files to MBI.
- RIC will provide the TRANSCAD modeling setups for MBI this week.
- WVDOH HPMS data

8. Schedule

MBI will perform and finish technical analysis within 30 days after the completion of data collection efforts, and then prepare documentation within 15 days after finishing technical analysis.

RIC, KYOVA and WWW stated that their public comment period is 15 days and will be responsible for completing the public comment requirements. RIC's next board meeting is September 13, KYOVA's is September 23, and WWW's is September 19.

WVDOH requested that once the public comment and conformity reports are complete to pursue special MPO Board meeting to approve the conformity before the next scheduled meeting to ensure timely delivery to FHWA/EPA.

9. Next Steps

To support future WVDEP Maintenance Plans (SIP) efforts, WWW will need to prepare 2025 network and RIC will need to prepare 2030 network files for MBI. MBI will perform the highway emissions summaries for 2025 and 2030 for WVDEP to use for future MVEB that will be included in the new Maintenance Plans.

MBI will finish modeling setups, conduct conformity analysis, and then distribute draft conformity report for ICG review in early/mid August.

Air Quality Data Checklist Summary

Data Item	Inputs Assumptions
Long Range Plan	2045 Regional Transportation Plan
Transportation Improvement Program	FY 2018-2021 TIP
MOVES RunSpec	
MOVES Version	MOVES2014a
MOVES Default Database	MOVESDB20161117
Scale/Calulation Type	County Scale Inventory Run
Analysis Counties	Kanawha (FIPS: 54039), Putnam (FIPS: 54079)
Analysis Years	2018, 2025, 2035, 2045
Analysis Days/Months	July Weekday
Pollutants	VOC, NOx
Stage II Refueling Emissions	Not Included
Fuel Types	Gasoline, Diesel, CNG, E85
Traffic Data	
Highway Network	Use socio-economic forecast and latest network inputs updated for 2045 LRTP
County HPMS VMT Adjustments	Calculate AADT HPMS adjustments for 2017 (Ensure VMT is consistent with reported HPMS)
Seasonal Adjustments	Use July weekday seasonal factors provided by DOT to convert AADT to average July weekday traffic
Vehicle Mixes	MOVES VMT required by 5 HPMS vehicle classes. Use DOT truck count data to split model traffic volumes into auto and trucks, and use MOVES2014a default VMT distributions for the region to divide the two vehicle groups (auto and trucks) into MOVES 13 source types, which are recombined to the 5 HPMS vehicle classes.
MOVES Inputs	
Annual VMT	Calculated by PPSUITE from model / seasonal factors / vehicle mapping
Avg. Hourly Speed Distribution	Calculated by PPSUITE (Minimum Speed = 2.5 mph)
Road Type Distribution	Calculated by PPSUITE; a RoadType field must be added to the travel model network based on FC.
Ramp Fraction	Calculated by PPSUITE (use ramp classes coded in model network) or use MOVES2014a defaults
Month VMT Fractions	Factors to convert AADT to an average day in each month (Local data or MOVES default). Calculated based on seasonal adjustment factors.
Day VMT Fractions	Calculated based on seasonal adjustment factors
Hour VMT Fractions	Factors to disaggregate daily traffic volumes by hour for different roadway functional classes. Borrow hourly distributions from other region.
Source Type Population	Use 2016 Inputs provided by WVDEP for all analysis year
Vehicle Age Distribution	Source Types 11, 21, 31, 32 & 54: based on 2016 WV DMV Registration Data for the region; Source Types 41, 42, 43, 51, 52, 53, 61 & 62: use MOVES National Defaults.
Fuel Parameters (Gasoline/Diesel/CNG/E85)	Use MOVES2014a defaults
I/M Parameters	No I/M programs
Temperatures/Humidity	Use MOVES2014a defaults
Control Programs	
Early NLEV	Include EPA provided MOVES override database for early NLEV implementation
AVFT	Not included
Stage II Refueling Parameters	Not Included

ATTACHMENT C

Detailed Emission Results

Detailed Emission Results for Daily Ozone Analysis

2018 Daily Ozone by County

County	Summer Daily VMT	Emissoins (Tons/Day)	
		VOC	NOx
Kanawha	6,828,359	3.22	9.00
Putnam	1,825,848	0.88	2.34
Off-Model Project Emission Benefits		0.00	0.00
Region Total	**8,654,207**	**4.09** **3,714**	**11.35** **10,292**

2025 Daily Ozone by County

County	Summer Daily VMT	Emissoins (Tons/Day)	
		VOC	NOx
Kanawha	7,484,591	2.14	5.31
Putnam	2,110,200	0.57	1.19
Off-Model Project Emission Benefits		0.00	0.00
Region Total	**9,594,791**	**2.70** **2,453**	**6.50** **5,895**

2035 Daily Ozone by County

County	Summer Daily VMT	Emissoins (Tons/Day)	
		VOC	NOx
Kanawha	8,331,316	1.25	3.68
Putnam	2,348,371	0.30	0.63
Off-Model Project Emission Benefits		0.00	0.00
Region Total	**10,679,686**	**1.55** **1,402**	**4.31** **3,911**

2045 Daily Ozone by County

County	Summer Daily VMT	Emissoins (Tons/Day)	
		VOC	NOx
Kanawha	9,186,424	1.15	3.94
Putnam	2,588,751	0.26	0.62
Off-Model Project Emission Benefits		0.00	0.00
Region Total	**11,775,175**	**1.41** **1,279**	**4.56** **4,133**

2018 Daily Ozone by Road Type

County	Road Type	Summer Daily VMT	Speed (mph)	Emissoins (Tons/Day) VOC	NOx
Kanawha	Off-Network	N/A	N/A	2.17	2.39
	Rural Restricted	1,764,438	60.0	0.20	1.76
	Rural UnRestricted	825,171	17.9	0.24	1.51
	Urban Restricted	1,853,368	56.8	0.22	1.92
	Urban UnRestricted	2,385,382	28.4	0.37	1.42
	Subtotal	*6,828,359*		*3.22*	*9.00*
Putnam	Off-Network	N/A	N/A	0.53	0.26
	Rural Restricted	0	N/A	0.00	0.00
	Rural UnRestricted	558,464	22.9	0.13	0.89
	Urban Restricted	703,846	55.3	0.08	0.58
	Urban UnRestricted	563,539	17.1	0.14	0.62
	Subtotal	*1,825,848*		*0.88*	*2.34*
Off-Model Project Emission Benefits				0.00	0.00
Region Total		**8,654,207**		**4.09**	**11.35**
			(Kg/Day)	**3,714**	**10,292**

2025 Daily Ozone by Road Type

County	Road Type	Summer Daily VMT	Speed (mph)	Emissoins (Tons/Day) VOC	NOx
Kanawha	Off-Network	N/A	N/A	1.56	1.97
	Rural Restricted	2,160,704	59.9	0.12	0.99
	Rural UnRestricted	831,579	17.0	0.12	0.72
	Urban Restricted	1,993,190	56.7	0.12	0.94
	Urban UnRestricted	2,499,118	27.3	0.22	0.69
	Subtotal	*7,484,591*		*2.14*	*5.31*
Putnam	Off-Network	N/A	N/A	0.36	0.14
	Rural Restricted	0	N/A	0.00	0.00
	Rural UnRestricted	506,783	22.1	0.06	0.37
	Urban Restricted	972,418	55.2	0.06	0.36
	Urban UnRestricted	631,000	16.4	0.09	0.32
	Subtotal	*2,110,200*		*0.57*	*1.19*
Off-Model Project Emission Benefits				0.00	0.00
Region Total		**9,594,791**		**2.70**	**6.50**
			(Kg/Day)	**2,453**	**5,895**

2035 Daily Ozone by Road Type

County	Road Type	Summer Daily VMT	Speed (mph)	Emissoins (Tons/Day) VOC	NOx
Kanawha	Off-Network	N/A	N/A	0.92	1.90
	Rural Restricted	2,666,952	59.8	0.07	0.59
	Rural UnRestricted	877,849	16.2	0.07	0.40
	Urban Restricted	2,144,709	56.5	0.06	0.49
	Urban UnRestricted	2,641,807	26.9	0.12	0.31
	Subtotal	*8,331,316*		*1.25*	*3.68*
Putnam	Off-Network	N/A	N/A	0.18	0.06
	Rural Restricted	0	N/A	0.00	0.00
	Rural UnRestricted	544,404	22.1	0.03	0.21
	Urban Restricted	1,139,149	55.1	0.03	0.20
	Urban UnRestricted	664,817	15.5	0.05	0.17
	Subtotal	*2,348,371*		*0.30*	*0.63*
Off-Model Project Emission Benefits				0.00	0.00
Region Total		**10,679,686**		**1.55**	**4.31**
			(Kg/Day)	**1,402**	**3,911**

2045 Daily Ozone by Road Type

County	Road Type	Summer Daily VMT	Speed (mph)	Emissoins (Tons/Day) VOC	NOx
Kanawha	Off-Network	N/A	N/A	0.83	2.16
	Rural Restricted	3,160,833	59.5	0.08	0.63
	Rural UnRestricted	935,283	15.5	0.07	0.40
	Urban Restricted	2,279,928	56.4	0.06	0.47
	Urban UnRestricted	2,810,381	26.1	0.12	0.28
	Subtotal	*9,186,424*		*1.15*	*3.94*
Putnam	Off-Network	N/A	N/A	0.14	0.04
	Rural Restricted	0	N/A	0.00	0.00
	Rural UnRestricted	583,009	22.0	0.03	0.21
	Urban Restricted	1,298,999	55.0	0.03	0.20
	Urban UnRestricted	706,743	14.5	0.05	0.17
	Subtotal	*2,588,751*		*0.26*	*0.62*
Off-Model Project Emission Benefits				0.00	0.00
Region Total		**11,775,175**		**1.41**	**4.56**
			(Kg/Day)	**1,279**	**4,133**

2018 Daily Ozone by Source Type

County	Source Type	Summer Daily VMT	Emissoins (Tons/Day) VOC	NOx
Kanawha	Motorcycle	38,173	0.10	0.03
	Passenger Car	2,159,027	0.85	0.69
	Passenger Truck	3,368,989	1.47	1.82
	Light Commercial Truck	134,706	0.12	0.15
	Intercity Bus	3,069	0.00	0.03
	Transit Bus	49,588	0.03	0.31
	School Bus	132	0.00	0.00
	Refuse Truck	4,391	0.00	0.02
	Single Unit Short-haul Truck	136,951	0.05	0.26
	Single Unit Long-haul Truck	274,031	0.09	0.55
	Motor Home	7,163	0.01	0.03
	Combination Short-haul Truck	206,131	0.05	0.98
	Combination Long-haul Truck	446,008	0.45	4.14
	Subtotal	*6,828,359*	*3.22*	*9.00*
Putnam	Motorcycle	10,206	0.03	0.01
	Passenger Car	539,904	0.23	0.18
	Passenger Truck	949,192	0.46	0.53
	Light Commercial Truck	24,836	0.02	0.03
	Intercity Bus	893	0.00	0.01
	Transit Bus	13,086	0.01	0.08
	School Bus	148	0.00	0.00
	Refuse Truck	36,976	0.01	0.20
	Single Unit Short-haul Truck	24,168	0.01	0.06
	Single Unit Long-haul Truck	48,000	0.02	0.12
	Motor Home	3,927	0.01	0.02
	Combination Short-haul Truck	64,476	0.02	0.35
	Combination Long-haul Truck	110,038	0.05	0.76
	Subtotal	*1,825,848*	*0.88*	*2.34*
Region Total		**8,654,207 (Kg/Day)**	**4.09 3,714**	**11.35 10,292**

2025 Daily Ozone by Source Type

County	Source Type	Summer Daily VMT	Emissoins (Tons/Day) VOC	NOx
Kanawha	Motorcycle	41,778	0.09	0.03
	Passenger Car	2,362,891	0.60	0.38
	Passenger Truck	3,687,104	0.94	0.91
	Light Commercial Truck	147,426	0.07	0.08
	Intercity Bus	3,565	0.00	0.02
	Transit Bus	54,603	0.01	0.16
	School Bus	143	0.00	0.00
	Refuse Truck	4,603	0.00	0.01
	Single Unit Short-haul Truck	145,805	0.02	0.12
	Single Unit Long-haul Truck	309,308	0.04	0.29
	Motor Home	7,014	0.01	0.02
	Combination Short-haul Truck	261,809	0.03	0.52
	Combination Long-haul Truck	458,541	0.33	2.79
	Subtotal	*7,484,591*	*2.14*	*5.31*
Putnam	Motorcycle	11,910	0.03	0.01
	Passenger Car	630,073	0.17	0.10
	Passenger Truck	1,107,716	0.29	0.27
	Light Commercial Truck	28,984	0.02	0.02
	Intercity Bus	1,093	0.00	0.01
	Transit Bus	14,271	0.00	0.04
	School Bus	159	0.00	0.00
	Refuse Truck	42,010	0.01	0.09
	Single Unit Short-haul Truck	25,262	0.00	0.03
	Single Unit Long-haul Truck	53,193	0.01	0.06
	Motor Home	3,776	0.00	0.01
	Combination Short-haul Truck	80,519	0.01	0.18
	Combination Long-haul Truck	111,234	0.02	0.37
	Subtotal	*2,110,200*	*0.57*	*1.19*
Region Total		**9,594,791 (Kg/Day)**	**2.70 2,453**	**6.50 5,895**

2035 Daily Ozone by Source Type

County	Source Type	Summer Daily VMT	Emissoins (Tons/Day) VOC	NOx
Kanawha	Motorcycle	46,424	0.09	0.03
	Passenger Car	2,625,661	0.33	0.14
	Passenger Truck	4,097,135	0.44	0.31
	Light Commercial Truck	163,821	0.03	0.02
	Intercity Bus	4,384	0.00	0.01
	Transit Bus	60,931	0.00	0.08
	School Bus	154	0.00	0.00
	Refuse Truck	5,234	0.00	0.01
	Single Unit Short-haul Truck	165,082	0.01	0.09
	Single Unit Long-haul Truck	346,127	0.02	0.22
	Motor Home	7,585	0.00	0.01
	Combination Short-haul Truck	294,566	0.01	0.37
	Combination Long-haul Truck	514,214	0.30	2.40
	Subtotal	*8,331,316*	*1.25*	*3.68*
Putnam	Motorcycle	13,273	0.03	0.01
	Passenger Car	702,188	0.09	0.04
	Passenger Truck	1,234,500	0.14	0.09
	Light Commercial Truck	32,302	0.01	0.00
	Intercity Bus	1,307	0.00	0.00
	Transit Bus	15,666	0.00	0.02
	School Bus	169	0.00	0.00
	Refuse Truck	49,968	0.00	0.07
	Single Unit Short-haul Truck	27,059	0.00	0.02
	Single Unit Long-haul Truck	56,314	0.00	0.05
	Motor Home	3,863	0.00	0.00
	Combination Short-haul Truck	89,090	0.01	0.13
	Combination Long-haul Truck	122,670	0.01	0.20
	Subtotal	*2,348,371*	*0.30*	*0.63*
Region Total		**10,679,686 (Kg/Day)**	**1.55 1,402**	**4.31 3,911**

2045 Daily Ozone by Source Type

County	Source Type	Summer Daily VMT	Emissoins (Tons/Day) VOC	NOx
Kanawha	Motorcycle	51,150	0.10	0.04
	Passenger Car	2,892,986	0.27	0.11
	Passenger Truck	4,514,272	0.36	0.21
	Light Commercial Truck	180,500	0.02	0.01
	Intercity Bus	5,354	0.00	0.01
	Transit Bus	66,934	0.00	0.08
	School Bus	168	0.00	0.00
	Refuse Truck	5,804	0.00	0.01
	Single Unit Short-haul Truck	182,966	0.01	0.10
	Single Unit Long-haul Truck	382,849	0.02	0.24
	Motor Home	8,338	0.00	0.00
	Combination Short-haul Truck	322,283	0.02	0.40
	Combination Long-haul Truck	572,820	0.35	2.74
	Subtotal	*9,186,424*	*1.15*	*3.94*
Putnam	Motorcycle	14,651	0.03	0.01
	Passenger Car	775,073	0.08	0.03
	Passenger Truck	1,362,637	0.11	0.06
	Light Commercial Truck	35,654	0.00	0.00
	Intercity Bus	1,419	0.00	0.00
	Transit Bus	17,160	0.00	0.02
	School Bus	183	0.00	0.00
	Refuse Truck	57,646	0.00	0.08
	Single Unit Short-haul Truck	28,751	0.00	0.02
	Single Unit Long-haul Truck	59,715	0.00	0.05
	Motor Home	4,071	0.00	0.00
	Combination Short-haul Truck	96,502	0.01	0.14
	Combination Long-haul Truck	135,289	0.01	0.20
	Subtotal	*2,588,751*	*0.26*	*0.62*
Region Total		**11,775,175 (Kg/Day)**	**1.41 1,279**	**4.56 4,133**

2018 Daily Ozone by Emission Process

County	Emission Process	Emissoins (Tons/Day) VOC	NOx
Kanawha	Running Exhaust	0.80	6.61
	Start Exhaust	1.03	0.93
	Brakewear	0.00	0.00
	Tirewear	0.00	0.00
	Evap Permeation	0.25	0.00
	Evap Fuel Vapor Venting	0.49	0.00
	Evap Fuel Leaks	0.31	0.00
	Crankcase Running Exhaust	0.02	0.00
	Crankcase Start Exhaust	0.01	0.00
	Crankcase Extended Idle Exhaust	0.01	0.00
	Extended Idle Exhaust	0.29	1.43
	Auxiliary Power Exhaust	0.01	0.04
	Subtotal	*3.22*	*9.00*
Putnam	Running Exhaust	0.26	2.08
	Start Exhaust	0.29	0.26
	Brakewear	0.00	0.00
	Tirewear	0.00	0.00
	Evap Permeation	0.07	0.00
	Evap Fuel Vapor Venting	0.15	0.00
	Evap Fuel Leaks	0.09	0.00
	Crankcase Running Exhaust	0.01	0.00
	Crankcase Start Exhaust	0.00	0.00
	Crankcase Extended Idle Exhaust	0.00	0.00
	Extended Idle Exhaust	0.00	0.00
	Auxiliary Power Exhaust	0.00	0.00
	Subtotal	*0.88*	*2.34*
Region Total		**4.09**	**11.35**
	(Kg/Day)	**3,714**	**10,292**

2025 Daily Ozone by Emission Process

County	Emission Process	Emissoins (Tons/Day) VOC	NOx
Kanawha	Running Exhaust	0.38	3.34
	Start Exhaust	0.67	0.50
	Brakewear	0.00	0.00
	Tirewear	0.00	0.00
	Evap Permeation	0.14	0.00
	Evap Fuel Vapor Venting	0.36	0.00
	Evap Fuel Leaks	0.31	0.00
	Crankcase Running Exhaust	0.01	0.00
	Crankcase Start Exhaust	0.01	0.00
	Crankcase Extended Idle Exhaust	0.00	0.00
	Extended Idle Exhaust	0.24	1.41
	Auxiliary Power Exhaust	0.02	0.06
	Subtotal	*2.14*	*5.31*
Putnam	Running Exhaust	0.13	1.05
	Start Exhaust	0.19	0.14
	Brakewear	0.00	0.00
	Tirewear	0.00	0.00
	Evap Permeation	0.04	0.00
	Evap Fuel Vapor Venting	0.11	0.00
	Evap Fuel Leaks	0.10	0.00
	Crankcase Running Exhaust	0.00	0.00
	Crankcase Start Exhaust	0.00	0.00
	Crankcase Extended Idle Exhaust	0.00	0.00
	Extended Idle Exhaust	0.00	0.00
	Auxiliary Power Exhaust	0.00	0.00
	Subtotal	*0.57*	*1.19*
Region Total		**2.70**	**6.50**
	(Kg/Day)	**2,453**	**5,895**

2035 Daily Ozone by Emission Process

County	Emission Process	Emissoins (Tons/Day) VOC	NOx
Kanawha	Running Exhaust	0.16	1.79
	Start Exhaust	0.24	0.20
	Brakewear	0.00	0.00
	Tirewear	0.00	0.00
	Evap Permeation	0.05	0.00
	Evap Fuel Vapor Venting	0.23	0.00
	Evap Fuel Leaks	0.30	0.00
	Crankcase Running Exhaust	0.00	0.00
	Crankcase Start Exhaust	0.00	0.00
	Crankcase Extended Idle Exhaust	0.00	0.00
	Extended Idle Exhaust	0.25	1.60
	Auxiliary Power Exhaust	0.03	0.09
	Subtotal	*1.25*	*3.68*
Putnam	Running Exhaust	0.05	0.57
	Start Exhaust	0.07	0.06
	Brakewear	0.00	0.00
	Tirewear	0.00	0.00
	Evap Permeation	0.01	0.00
	Evap Fuel Vapor Venting	0.07	0.00
	Evap Fuel Leaks	0.10	0.00
	Crankcase Running Exhaust	0.00	0.00
	Crankcase Start Exhaust	0.00	0.00
	Crankcase Extended Idle Exhaust	0.00	0.00
	Extended Idle Exhaust	0.00	0.00
	Auxiliary Power Exhaust	0.00	0.00
	Subtotal	*0.30*	*0.63*
Region Total		**1.55**	**4.31**
	(Kg/Day)	**1,402**	**3,911**

2458 Daily Ozone by Emission Process

County	Emission Process	Emissoins (Tons/Day) VOC	NOx
Kanawha	Running Exhaust	0.15	1.78
	Start Exhaust	0.16	0.15
	Brakewear	0.00	0.00
	Tirewear	0.00	0.00
	Evap Permeation	0.03	0.00
	Evap Fuel Vapor Venting	0.20	0.00
	Evap Fuel Leaks	0.28	0.00
	Crankcase Running Exhaust	0.00	0.00
	Crankcase Start Exhaust	0.00	0.00
	Crankcase Extended Idle Exhaust	0.00	0.00
	Extended Idle Exhaust	0.29	1.90
	Auxiliary Power Exhaust	0.03	0.11
	Subtotal	*1.15*	*3.94*
Putnam	Running Exhaust	0.05	0.58
	Start Exhaust	0.04	0.04
	Brakewear	0.00	0.00
	Tirewear	0.00	0.00
	Evap Permeation	0.01	0.00
	Evap Fuel Vapor Venting	0.06	0.00
	Evap Fuel Leaks	0.09	0.00
	Crankcase Running Exhaust	0.00	0.00
	Crankcase Start Exhaust	0.00	0.00
	Crankcase Extended Idle Exhaust	0.00	0.00
	Extended Idle Exhaust	0.00	0.00
	Auxiliary Power Exhaust	0.00	0.00
	Subtotal	*0.26*	*0.62*
Region Total		**1.41**	**4.56**
	(Kg/Day)	**1,279**	**4,133**

ATTACHMENT D

Sample MOVES
Data Importer (XML) Input File
and
Run Specification (MRS) Input FIle

(Sample For 2018 July Weekday Runs: Kanawha County)

MOVES County Data Manager Importer File – July Weekday Run (MOVESIMPORTER.XML)


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<moves>
    <importer mode="county" >
        <filters>
    <geographicselections>
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    </geographicselections>
    <timespan>
        <year key="2018"/>
        <month id="07"/>
        <day id="2"/>
        <day id="5"/>
        <beginhour id="1"/>
        <endhour id="24"/>
        <aggregateBy key="Hour"/>
    </timespan>
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        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
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MOVES Run Specification File – July Weekday Run (MOVESRUN.MRS)

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SECTION 7

Transportation Conformity Resolution

RESOLUTION OF THE B-C-K-P REGIONAL INTERGOVERNMENTAL COUNCIL POLICY BOARD CONCERNING THE TRANSPORTATION CONFORMITY DETERMINATION FOR THE FY 2022-2025 TRANSPORTATION IMPROVEMENT PROGRAM IN ACCORDANCE WITH THE 1990 CLEAN AIR ACT AMENDMENTS AND WEST VIRGINIA STATE IMPLEMENTATION PLAN

WHEREAS, The B-C-K-P Regional Intergovernmental Council (RIC) is the officially designated Metropolitan Planning Organization (MPO) for long range transportation planning in the Charleston, West Virginia Metropolitan Planning Area (Kanawha and Putnam counties); and

WHEREAS, RIC is responsible for developing a four-year Transportation Improvement Program (TIP) for the Charleston, WV Metropolitan Planning area as required by the Fixing America's Surface Transportation (FAST) Act; and

WHEREAS, The Charleston, WV area, comprising Kanawha and Putnam counties is designated by the U.S. EPA as a Maintenance Area for 1997 8-Hour Ozone and 2006 24-Hour PM2.5 with a mobile source insignificance finding; and

WHEREAS, 40 CFR 93.109(f) and Section 176 C of the 1990 Clean Air Act Amendments, require a qualitative transportation conformity determination for the Transportation Improvement Program and the Metropolitan Transportation Plan for the Charleston, WV Metropolitan Planning Area with respect to the West Virginia State Implementation Plan for maintaining the National Ambient Air Quality Standards (NAAQS); and

WHEREAS, The current West Virginia State Implementation Plan contains no Transportation Control Measures (TCMs) for the Charleston, WV Metropolitan Planning Area.

NOW, THEREFORE, BE IT RESOLVED, THAT THE BCKP REGIONAL INTERGOVERNMENTAL COUNCIL:

Determines the FY 2022-2025 Transportation Improvement Program (TIP) and current Metropolitan Transportation Plan for the Charleston, WV Metropolitan Planning Area are consistent with the West Virginia State Implementation Plan.

Assures the FY 2022-2025 Transportation Improvement Program and current Metropolitan Transportation Plan for the Charleston, WV Metropolitan Planning Area contain no goals, directives, recommendations, or projects which contradict any requirements or commitments of the West Virginia State Implementation Plan.

Certifies that the FY 2022-2025 Transportation Improvement Program shall include any Transportation Control Measures (TCMs) for the Charleston, WV Metropolitan Planning Area identified in the West Virginia State Implementation Plan.

Determines that the current Metropolitan Transportation Plan and FY 2022-2025 Transportation Improvement Program meets all current transportation conformity requirements for both Ozone and PM 2.5 air pollutants.

Assures all applicable public involvement procedures as outlined by the RIC MPO Public Participation Plan have been followed.

Makes a qualitative transportation conformity determination for the FY 2022-2025 Transportation Improvement Program based upon the attached supporting documentation.

So, resolved this 9th day of December 2021.

David Fletcher, Chairman
BCKP Regional Intergovernmental Council

Resolution of Approval

RESOLUTION OF THE B-C-K-P REGIONAL INTERGOVERNMENTAL COUNCIL POLICY BOARD CONCERNING ADOPTION OF THE FY 2022-2025 TRANSPORTATION IMPROVEMENT PROGRAM

WHEREAS, The B-C-K-P Regional Intergovernmental Council (RIC) is the officially designated Metropolitan Planning Organization (MPO) for long range transportation planning in the Charleston, West Virginia Metropolitan Planning Area (Kanawha and Putnam counties); and

WHEREAS, The RIC MPO is required to develop a Transportation Improvement Program (TIP) in accordance with the requirements of the Fixing America's Surface Transportation (FAST) Act; and

WHEREAS, The Transportation Improvement Program for Fiscal Years 2022-2025 is consistent with the 2050 Metropolitan Transportation Plan; and

WHEREAS, The attached FY 2022-2025 TIP was developed in cooperation with the West Virginia Department of Transportation and Kanawha Valley Regional Transportation Authority; and

WHEREAS, The FY 2022-2025 TIP satisfies the transportation conformity requirements of 40 CFR 93.109 and the 1990 Clean Air Act Amendments; and

WHEREAS, All applicable public involvement procedures as outlined by the RIC MPO Public Participation Plan have been followed.

NOW, THEREFORE, BE IT RESOLVED, that the BCKP Regional Intergovernmental Council endorses the Transportation Improvement Program (TIP) for Fiscal Years 2022-2025.

So, resolved this 9th day of December 2021.

David Fletcher, Chairman
BCKP Regional Intergovernmental Council