

**TRANSPORTATION TECHNICAL COORDINATING COMMITTEE**

**1:00 p.m., Wednesday, May 12, 2021**

**Video Meeting**

The Committee members and public will be able to participate, observe and comment from the safety of their homes (access to KIPDA offices is not permitted at this time). Please review the following notes:

- Each **TTCC MEMBER** will be provided via email a unique web-link to the Zoom video conference.
- The **PUBLIC** may review the meeting materials and find the web-link to the video meeting at: <https://www.kipda.org/committees-and-councils/transportation-technical-coordinating-committee/meeting-information/>
- There will be a public comment period at the beginning of the TTCC video meeting. The public may also submit comments in advance of the meeting by emailing: [KIPDA.trans@kipda.org](mailto:KIPDA.trans@kipda.org)

**AGENDA**

- 1) *Call to Order, Welcome, Roll Call*
- 2) *April 2021 TTCC Meeting Minutes* – The Chair will entertain a review and the approval of the prior meeting's minutes. (see enclosed) **Action Requested.**
- 3) *Transportation Policy Committee Report* – Staff will report on the activities of the April 2021 TPC meeting.
- 4) *Public Comment Period* – The TTCC Chair will facilitate a review of comments submitted prior to the TTCC meeting and entertain comments offered as part of Agenda Item 4.
- 5) *Cost Increases for Projects Using MPO Dedicated Funds* – Staff will present proposed cost increases to projects funded with MPO dedicated funds and seek a recommendation for approval (see enclosed). **Action Requested.**
- 6) *Connecting Kentuckiana Red Flag Inventory* – Staff will present the online Red Flag Inventory tool that has recently been updated as part of the ongoing Connecting Kentuckiana 2050 Metropolitan Transportation Plan Update. (see enclosed)
- 7) *CRRSAA Funding Awards* – Staff will present projects proposed to use the funds made available through the Highway Infrastructure Program (HIP) - Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) and seek a recommendation for their approval (see enclosed). **Action Requested.**

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- 8) *Amendment 3 to the Connecting Kentuckiana 2040 Metropolitan Transportation Plan and the 2020-2025 Transportation Improvement Program* – Staff will present Amendment 3 and seek a recommendation for its approval (see enclosed). **Action Requested.**
- 9) *Active Transportation Plan* – Staff will update the Committee on Active Transportation Plan activities. (see enclosed)
- 10) *Other Business*
- 11) *Adjourn*

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**MEETING MINUTES**  
**TRANSPORTATION TECHNICAL COORDINATING COMMITTEE (TTCC)**  
**1:00 p.m., Tuesday, April 14, 2021**  
**Via Video Conference**

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**Call to Order**

Chair Keith Griffie called the meeting to order at 1:00 p.m. Roll call was taken electronically via Zoom and it was determined that there was a quorum present.

**Review and Approval of Minutes**

Jim Urban, Oldham County Planning Commission, made a motion to approve the minutes for the February TTCC meeting. Toyna Higdon, Kentucky Transportation Cabinet (KYTC), seconded the motion and it carried with a unanimous vote.

**Transportation Policy Committee (TPC) Report**

Amanda Spencer, KIPDA staff, reported on the February TPC meeting. No action was required.

**Public Comment Period**

There were no public comments.

**Quarterly Review of MPO Dedicated Programs**

Nick Vail, KIPDA staff, presented proposed changes to the MPO dedicated funds. **Dirk Gowin, Louisville Metro Public Works & Assets, made a motion to recommend approval of the proposed changes to the TPC. Matt Meunier, City of Jeffersontown, seconded the motion and it carried with a unanimous vote.**

**CRRSAA Proposal**

Nick Vail, KIPDA staff, presented a proposal for the funds made available through the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA). There was discussion. **Dirk Gowin, Louisville Public Works & Assets, made a motion to recommend approval of the proposal to the TPC. Barry Armstrong, City of Mt. Washington, seconded the motion and it carried with a unanimous vote.**

**Amendment 3 to the Connecting Kentuckiana 2040 Metropolitan Transportation Plan (MTP) and the FY 2020-2025 Transportation Improvement Program (TIP)**

Nick Vail, KIPDA staff, provided an update on Amendment 3 of the MTP and TIP. No action was required.

**FY 2022-2027 Transportation Improvement Program (TIP) Update**

Amanda Spencer, KIPDA staff, announced that the schedule sent out to the committee has been retracted and KIPDA staff will provide a revised schedule in the future.

**The KYTC Shift Process**

Andy Rush, KIPDA staff, reviewed the process being proposed for Sponsorship by the MPO in the KYTC SHIFT Process. There was discussion. **Curtis Hockenbury, City of Shepherdsville, made a motion to recommend approval of the process to the**

**TPC. Jim Silliman, Oldham County, seconded the motion and it carried with a unanimous vote.**

**Other Business**

Nick Vail, KIPDA staff, announced that applications for the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program are due by July 12, 2021. There was discussion. No action was required.

Amanda Spencer, KIPDA staff, announced that Tonya Higdon of KYTC will be moving into a new position at KYTC and thanked Tonya for her hard work. Amanda also introduced Sadie Middleton, who will be taking over Tonya's role on the committee.

**Adjournment**

The meeting was adjourned at 1:59 p.m.

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Amanda Spencer  
Recording Secretary

**Members Present:**

Keith Griffie (Chair)	Bullitt County
Matt Meunier	City of Jeffersontown
Barry Armstrong	City of Mt. Washington
Larry Summers	City of New Albany
Curtis Hockenbury	City of Shepherdsville
Kenan Stratman	City of St. Matthews
Brian Dixon	Clark County
Kathy Eaton-McKalip	Indiana Department of Transportation – Public Transportation
Tonya Higdon	Kentucky Transportation Cabinet
Tom Hall	Kentucky Transportation Cabinet – District 5
Amanda Spencer	KIPDA
Craig Butler	Louisville Metro Air Pollution Control District
Michael King	Louisville Metro Economic Development
Dirk Gowin	Louisville Metro Public Works & Assets
Jim Silliman	Oldham County
Jim Urban	Oldham County Planning Commission
Aida Copic	TARC
Brittany Montgomery	Town of Clarksville
*Rickie Boller	TRIMARC

**Members Absent:**

\*AARP – Kentucky  
\*Bullitt County Chamber of Commerce  
City of Charlestown  
City of Jeffersonville  
Clark County Air Board  
\*Clark County Fire Chiefs Association  
Clark County Planning Commission  
\*Federal Aviation Administration – Memphis  
\*Federal Highway Administration – Indiana  
\*Federal Highway Administration – Kentucky  
\*Federal Transit Administration – Region 4  
Floyd County  
\*Greater Louisville Inc.  
Indiana Department of Environmental Management  
Indiana Department of Transportation – Seymour District  
Indiana Department of Transportation – Urban & MPO Section  
\*Indiana Motor Truck Association  
Kentucky Division for Air Quality

## Agenda Item #2

Kentucky Transportation Cabinet – Office of Transportation Delivery

\*Kentucky Trucking Association

Louisville & Jefferson County Riverport Authority

Louisville Metro Planning & Design Services

Louisville Regional Airport Authority

\*Louisville Water Company

\*Louisville/Jefferson County Metro Sewer District

\*Oldham Chamber & Economic Development

\*One Southern Indiana

Ports of Indiana – Jeffersonville

\*River Hills Economic Development District

\*Southern Indiana Transit Advisory Group

TARC Accessibility Advisory Council

\*University of Louisville

### **Other Attendees**

John Callihan	AECOM
Quentin Smith	DLZ
Travis Thompson	HDR Inc.
Lisa Willner	Kentucky State House of Representatives
Sadie Middleton	Kentucky Transportation Cabinet
Grant Williams	Kentucky Transportation Cabinet
Larry Chaney	Kentucky Transportation Cabinet – District 5
Greg Burress	KIPDA
David Burton	KIPDA
Stacey Burton	KIPDA
Adam Forseth	KIPDA
Mikaela Gerry	KIPDA
Jarrett Haley	KIPDA
Andy Rush	KIPDA
Randy Simon	KIPDA
Nick Vail	KIPDA
Chester Hicks	Louisville Downtown Partnership
Bradley Coomes	Louisville Metro Air Pollution Control District
Rachel Casey	Louisville Metro Economic Development
Nicole George	Louisville Metro Government
Karen Mohammadi	Michael Baker International
Seth Winslow	Strand Associates
Chris Ward	TARC
Bob Stein	United Consulting

\* Denotes Advisory Members



*Area Agency on Aging and Independent Living  
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**Agenda Item #5**

**MEMORANDUM**

**TO:** Transportation Technical Coordinating Committee  
**FROM:** Nick Vail  
**DATE:** April 28, 2021  
**SUBJECT:** Cost Increases for MPO Dedicated Projects

As the Metropolitan Planning Organization (MPO) for the Louisville, KY-IN Metropolitan Planning Area (MPA), the Transportation Policy Committee (TPC) has the authority to award and manage Federal funds from four programs in Indiana and two programs in Kentucky. On a quarterly basis, KIPDA staff provides an update on the status of projects funded by these programs, presents any cost increase and phase shift requests, and highlights any project phases for which funds were obligated in the previous three months.

Last month KIPDA staff presented an update on the MPO dedicated projects and some cost increase requests for approval. However, there are additional cost increase requests that were not yet ready to present last month. Staff will request that TTCC recommend TPC approval of the additional cost increases for Indiana and Kentucky projects. Please see the attachments for more information.

**Action is requested to recommend that TPC approve all additional cost increases requested by Indiana and Kentucky project sponsors.**

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**MPO Dedicated Projects  
Cost Increase Requests**

Project Sponsor	Project Name	KIPDA ID	State ID	Funding Source	Phase	Increase
Clarksville	Clarksville Montgomery Avenue / Jeffersonville 9th Street Multimodal Connection	2541	1801597	Transportation Alternatives (TA) - MPO	FY 2022 Construction	\$198,300
Mount Washington	Historic Multi-Use Trail Segment C	2479	05-08501.00	Surface Transportation Block Grant (STBG) - MPO	FY 2021 Design	\$67,200
New Albany	E. Main Street from State Street Intersection to E. 5th Street Intersection	2392	1700730	Surface Transportation Block Grant (STBG) - MPO	FY 2022 Construction	\$198,300



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**Agenda Item #6**

**MEMORANDUM**

**TO:** Transportation Technical Coordinating Committee  
**FROM:** Mikaela Gerry, Transportation Planner  
**DATE:** May 5, 2021  
**SUBJECT:** KIPDA Red Flag Inventory

KIPDA's Red Flag Inventory is an interactive map that can be utilized during the project development process to help identify sensitive areas that could impact the cost, design, or construction of a project. KIPDA staff recently updated the data and reformatted the interactive map so the tool would be more user-friendly. The data was grouped into six (6) different categories: Infrastructure, Sites, Water Resources, Mining & Mineral, Hazardous Material, and Environmental. Users can select any category, or multiple categories at once, and turn on the individual data layers.

The Red Flag Inventory can be found here:

<https://kipda.maps.arcgis.com/apps/webappviewer/index.html?id=b50ca6b6c0dd4f12ba30d1448392020b>

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**Agenda Item #7**

**MEMORANDUM**

**TO:** Transportation Technical Coordinating Committee

**FROM:** Nick Vail

**DATE:** April 28, 2021

**SUBJECT:** Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) – MPO Dedicated Funding Awards

On December 27, 2020, the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) was signed into law. The bill authorized \$22.9 billion in COVID-19 relief funds including \$10 billion for the Highway Infrastructure Program (HIP). All states received a portion of the CRRSAA funds including Indiana and Kentucky. Both states then sub-allocated a portion of their funds to each Metropolitan Planning Organization (MPO) in their respective state. KIPDA received \$1,262,685 for our Indiana counties and \$7,938,015 for our Kentucky counties.

Last month the TPC approved a CRRSAA-MPO funding distribution proposal. Since then, project sponsors have decided which projects they plan to program these new funds towards. Staff will request that TTCC recommend that TPC approve the CRRSAA-MPO funding awards. Please see the attachments for more information.

**Action is requested to recommend that TPC approve the HIP-CRRSAA funding distribution proposal.**

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**CRRSAA-MPO Funding Awards**

Agenda Item #7a

State	Sponsor	CRRSAA-MPO Funds	Project Name	Phase	KIPDA ID	State ID
Indiana	Clark County	\$223,585	CR 403 and Stacy Road Intersection Improvements	FY 2022 Right of Way	2549	1802805
	Clarksville	\$248,788	Riverside Drive Reconstruction	FY 2024 Construction	2393	1700725
	Floyd County	\$200,000	Farnsley Knob Road Guardrail Installation	FY 2023 Construction	2532	1801582
		\$106,183	Replacement of Bridge 51	FY 2023 Construction	1558	1700788
	Jeffersonville	\$154,371	Jeffersonville 9th Street / Clarksville Montgomery Avenue Multimodal Connection	FY 2022 Construction	2541	1801597
	New Albany	\$329,759	E. Main Street Improvements	FY 2022 Construction	2392	1700730
	Total	\$1,262,686				
Kentucky	Bullitt County	\$418,034	KY 44	FY 2021 Design	2916	TBD
	Jeffersontown	\$370,707	TBD			
	Louisville Metro	\$5,981,134	River Road	FY 2022 Construction	163	05-00091.02
	Middletown	\$52,341	Wetherby Avenue	FY 2021 Construction	2229	05-03222.00
	Mount Washington	\$118,000	Historic Memorial Multi-Use Trail	FY 2022 Construction	2479	05-03216.00
	Oldham County	\$575,000	Buckner Connector	FY 2021 Construction	1808	05-00754.00
		\$340,324	Oldham County Bicycle & Pedestrian Trail Old LaGrange Road Improvements	FY 2022 Right of Way	2175	05-00410.01
	University of Louisville	\$82,475	Campus Improvements	FY 2021 Design	2150	05-08805.00
	Total	\$7,938,015				



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**Agenda Item #8**

**MEMORANDUM**

**TO:** Transportation Technical Coordinating Committee

**FROM:** David Burton and Nick Vail

**DATE:** April 28, 2021

**SUBJECT:** Amendment 3 to the Connecting Kentuckiana 2040 Metropolitan Transportation Plan (MTP) and FY 2020-2025 Transportation Improvement Program (TIP)

KIPDA staff is ready to present Amendment 3 to the committees for consideration. Sponsors were given until February 1<sup>st</sup> to submit project changes. In addition to the project changes that are being proposed, staff is also updating the Federally required safety performance measures and targets. The air quality conformity analysis and the public comment period have been completed. The Transportation Policy Committee (TPC) has been informed that no public comments were received.

**Two actions are requested for TTCC to recommend TPC:**

- 1) Approval of Amendment 3 to the Connecting Kentuckiana 2040 MTP, and**
- 2) Approval of Amendment 3 to the FY 2020-2025 TIP.**

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**Connecting Kentuckiana 2040 Metropolitan Transportation Plan and  
FY 2020-2025 Transportation Improvement Plan**

The Kentuckiana Regional Planning and Development Agency (KIPDA) is the metropolitan planning organization (MPO) for the five-county region covering Jefferson, Bullitt and Oldham counties in Kentucky and Clark and Floyd counties in Indiana. The MPO's responsibilities include producing a long-range transportation document, Connecting Kentuckiana 2040 Metropolitan Transportation Plan (MTP) as well as a short-range planning document, the Fiscal Year (FY) 2020-2025 Transportation Improvement Program (TIP).

Changes have been proposed to the MTP and TIP. The MTP, with the proposed changes, is financially reasonable and the TIP remains fiscally constrained. This packet includes the following documents:

- A listing of all the projects being added, removed, or modified
- Revisions to the MPO's Performance Management Plan
- Air quality conformation documentation
- Meeting minutes from the Interagency Consultation (IAC) conference call

Please review the proposed changes and submit comments in any of the following ways:

- Visit <https://kipdatransportation.org/amendment3/> and click on the *Amendment 3 Map* link to leave comments
- Email your comments to [kipda.trans@kipda.org](mailto:kipda.trans@kipda.org)
- Mail your comments to us at:  
TIP & MTP Amendment, KIPDA,  
11520 Commonwealth Drive, Louisville, KY 40299
- Attend and ask questions or provide comments live during a virtual open house to be held on April 27, 2021 from 5:00 p.m. – 6:00 p.m. A link to the virtual meeting can be found at the bottom of the following webpage <https://kipdatransportation.org/amendment3/>

If you have questions or additional information is needed, call Greg Burruss at 502-266-6144 ext. 123.

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**Amendment 3**  
**Connecting Kentuckiana 2040 Metropolitan Transportation Plan**  
**FY 2020 - FY 2025 Transportation Improvement Program**  
**TPC Approval Scheduled for May 27, 2021**

TIP Action:	Modify TIP funding and reflect changes to project scope				
MTP Action:	Revise MTP project cost and reflect changes to project scope				
Exempt/ Non-Exempt:	Non-Exempt	Model Impact:	Add project to 2030, 2035, and 2040 scenarios		
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	2899	State ID:	1900162.00
County	Floyd	Parent ID:	N/A	Group ID:	N/A
Project Name:	I-64 Added Travel Lanes		Total Estimated Cost in MTP (i.e. CK 2040):	\$46,807,800	
			Total Cost Programmed in TIP to Date:	<del>\$30,000,000</del> \$46,807,800	
Funding Source:	Interstate Maintenance (IM) National Highway Performance Program (NHPP)		Open to Public Date:	2026	
Description:	<div>Added travel lanes project on I-64 from US 150 to Spring Street. Project also includes added lanes on I-265 from I-64 to State Street and improvements to the interchanges of I-64 at US 150 and I-265.</div> <div>Added travel lanes project from US 150 to I-64 and Spring Street interchange.</div>				
Purpose & Need:	The addition of the mainline through and auxiliary lanes on I-64 as well as additional ramp lanes at the US 150 and I-265 interchanges will provide improved densities, levels of service and travel times with significant reduction in driver delay west of I-265.				
FY 20-25 TIP Funding:	<div>FY 2020 Preliminary Engineering phase with the following State funds: \$0 (Federal) + \$1,557,800 (Other) = \$1,557,800 (Total)</div> <div>FY 2022 Preliminary Engineering phase with the following NHPP funds: \$13,500,000 (Federal) + \$1,500,000 (Other) = \$15,000,000 (Total)</div> <div>FY 2023 Right of Way phase with the following IM funds: \$225,000 (Federal) + \$25,000 (Other) = \$250,000 (Total)</div> <div>*FY 2024 Construction phase with the following NHPP funds: \$27,000,000 (Federal) + \$3,000,000 (Other) = \$30,000,000 (Total)</div>				

\*This phase will only be shown in the TIP for illustrative purposes since it is outside of the first four years of the FY20-25 TIP.

**Amendment 3**  
**Connecting Kentuckiana 2040 Metropolitan Transportation Plan**  
**FY 2020 - FY 2025 Transportation Improvement Program**  
**TPC Approval Scheduled for May 27, 2021**

TIP Action:	Add project				
MTP Action:	Add project				
Exempt/Non-Exempt:	Non-Exempt	Model Impact:	Add project to 2025, 2030, 2035, and 2040 scenarios.		
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	NEW	State ID:	2000288
County	Floyd	Parent ID:	N/A	Group ID:	N/A
Project Name:	I-64 and Spring Street Interchange Modification	Total Estimated Cost in MTP (i.e. CK 2040):		\$2,823,856	
		Total Cost Programmed in TIP to Date:		\$350,000	
Funding Source:	National Highway Performance Program (NHPP)		Open to Public Date:		2025
Description:	Interchange modification at ramp junctions with Spring Street, including Spring Street from 5th Street to State Street and Spring Street from 5th Street to Washington Place.				
Purpose & Need:	The City of New Albany is evaluating the effects of converting Spring Street from one-way operation to two-way operation between 5th Street and State Street. Clark Dietz was hired to develop proposed lane configurations on Spring Street to accomplish the conversion and to perform a traffic capacity analysis of the Spring Street corridor to determine the effects of the conversion on existing traffic operations. This traffic capacity analysis evaluates three scenarios along the Spring Street corridor. While the proposed one-way to two-way conversion of Spring Street will redistribute traffic within the existing traffic network, the surrounding intersections will still operate efficiently if the recommended signal timing, cycle length, and storage length adjustments are incorporated. With these adjustments incorporated, the LOS for the existing intersections will not be negatively impacted, and in most cases will be improved compared to the existing conditions.				
FY 20-25 TIP Funding:	FY 2022 Preliminary Engineering phase with the following NHPP funds: \$280,000 (Federal) + \$70,000 (Other) = \$350,000 (Total)				

\*This phase will only be shown in the TIP for illustrative purposes since it is outside of the first four years of the FY20-25 TIP.

**Amendment 3**  
**Connecting Kentuckiana 2040 Metropolitan Transportation Plan**  
**FY 2020 - FY 2025 Transportation Improvement Program**  
**TPC Approval Scheduled for May 27, 2021**

TIP Action:	Add project				
MTP Action:	Add project				
Exempt/Non-Exempt:	Exempt	Model Impact:	No change to model		
Project Sponsor:	Kentucky Transportation Cabinet (KYTC)	KIPDA ID:	NEW	State ID:	5-20061.00
County	Jefferson	Parent ID:	N/A	Group ID:	N/A
Project Name:	I-65	Total Estimated Cost in MTP (i.e. CK 2040):		\$56,000,000	
		Total Cost Programmed in TIP to Date:		\$56,000,000	
Funding Source:	National Highway Performance Program (NHPP)		Open to Public Date:		2025
Description:	Address Pavement needs on I-65 between MP 131.24 and MP 135.672 and to replace bridge over Hill Street at MP 133.873; replace bridge over Brook Street at MP 134.753, and to replace bridge over Jacob and Broadway at MP 135.273				
Purpose & Need:	To address existing infrastructure deficiencies.				
FY 20-25 TIP Funding:	FY 2021 Design phase with the following NHPP funds: \$1,800,000 (Federal) + \$200,000 (Other) = \$2,000,000 (Total)  FY 2023 Construction phase with the following NHPP funds: \$48,600,000 (Federal) + \$5,400,000 (Other) = \$54,000,000 (Total)				

\*This phase will only be shown in the TIP for illustrative purposes since it is outside of the first four years of the FY20-25 TIP.

**Amendment 3**  
**Connecting Kentuckiana 2040 Metropolitan Transportation Plan**  
**FY 2020 - FY 2025 Transportation Improvement Program**  
**TPC Approval Scheduled for May 27, 2021**

TIP Action:	Add project				
MTP Action:	Add project				
Exempt/Non-Exempt:	Exempt	Model Impact:	No change to model		
Project Sponsor:	Transit Authority of River City (TARC)	KIPDA ID:	NEW	State ID:	N/A
County	Jefferson	Parent ID:	585	Group ID:	N/A
Project Name:	Construct Maintenance Facility		Total Estimated Cost in MTP (i.e. CK 2040):	\$1,250,000	
			Total Cost Programmed in TIP to Date:	\$1,250,000	
Funding Source:	Grants for Buses and Bus Facilities Formula Program (Section 5339)		Open to Public Date:	2022	
Description:	TARC will expand its maintenance running repair bays to provide storage and two offices.				
Purpose & Need:	TARC repairs buses 24/7 in six bays at its Union Station maintenance facility. The six bays and three shifts of mechanics have no location or space set aside for tool and equipment storage. Additionally, TARC's Assistant Director of Maintenance and Maintenance Asset Manager currently utilize temporary office space. This project will answer both needs.				
FY 20-25 TIP Funding:	FY 2020 Transit Capital phase with the following Section 5339 funds: \$1,000,000 (Federal) + \$250,000 (Other) = \$1,250,000 (Total)				
TIP Action:	Add project				
MTP Action:	Add project				
Exempt/Non-Exempt:	Exempt	Model Impact:	No change to model		
Project Sponsor:	Transit Authority of River City (TARC)	KIPDA ID:	NEW	State ID:	N/A
County	Jefferson	Parent ID:	585	Group ID:	N/A
Project Name:	Purchase Fifteen (15) 40' Buses		Total Estimated Cost in MTP (i.e. CK 2040):	\$7,500,000	
			Total Cost Programmed in TIP to Date:	\$7,500,000	
Funding Source:	Urbanized Area Formula Grants (Section 5307)		Open to Public Date:	2022	
Description:	Purchase fifteen (15) 40' low-floor, clean-diesel buses using FY 2021 apportionment funds.				
Purpose & Need:	TARC will purchase fifteen (15) 40' low-floor, clean-diesel buses to replace existing buses that have exceeded their expected useful life.				
FY 20-25 TIP Funding:	FY 2021 Transit Capital phase with the following Section 5307 funds: \$6,000,000 (Federal) + \$1,500,000 (Other) = \$7,500,000 (Total)				

\*This phase will only be shown in the TIP for illustrative purposes since it is outside of the first four years of the FY20-25 TIP.

**Amendment 3**  
**Connecting Kentuckiana 2040 Metropolitan Transportation Plan**  
**FY 2020 - FY 2025 Transportation Improvement Program**  
**TPC Approval Scheduled for May 27, 2021**

TIP Action:	Remove from TIP				
MTP Action:	N/A				
Exempt/Non-Exempt:	Exempt	Model Impact:	No change to model		
Project Sponsor:	Transit Authority of River City (TARC)	KIPDA ID:	2458	State ID:	N/A
County	Jefferson	Parent ID:	585	Group ID:	N/A
Project Name:	Purchase Shop Equipment		Total Estimated Cost in MTP (i.e. CK 2040):	N/A	
			Total Cost Programmed in TIP to Date:	\$494,399-	
Funding Source:	Grants for Buses and Bus Facilities Formula Program (Section 5339)		Open to Public Date:	2021	
Description:	Purchase maintenance shop equipment to maintain transit fleet and support vehicles.				
Purpose & Need:	TARC will apply these funds to purchasing shop equipment to maintain state of good repair for its fixed route fleet and support vehicles.				
FY 20-25 TIP Funding:	FY 2021 Transit Capital phase with the following Section 5339 funds:- \$395,519 (Federal) + \$98,880 (Other) = \$494,399 (Total)				
TIP Action:	Add project				
MTP Action:	Add project				
Exempt/Non-Exempt:	Exempt	Model Impact:	No change to model		
Project Sponsor:	Transit Authority of River City (TARC)	KIPDA ID:	NEW	State ID:	N/A
County	Jefferson	Parent ID:	585	Group ID:	N/A
Project Name:	Rehab Administration Building / Maintenance Facility		Total Estimated Cost in MTP (i.e. CK 2040):	\$3,500,000	
			Total Cost Programmed in TIP to Date:	\$3,500,000	
Funding Source:	Urbanized Area Formula Grants (Section 5307)		Open to Public Date:	2022	
Description:	Rehabilitate an administrative facility and/or maintenance facility with the goal of reducing operating costs by maintaining a state of good repair.				
Purpose & Need:	TARC will apply these funds to a rehabilitation project for an existing administrative building and/or for an existing maintenance facility.				
FY 20-25 TIP Funding:	FY 2021 Transit Capital phase with the following Section 5307 funds: \$2,800,000 (Federal) + \$700,000 (Other) = \$3,500,000 (Total)				

\*This phase will only be shown in the TIP for illustrative purposes since it is outside of the first four years of the FY20-25 TIP.

**Amendment 3**  
**Connecting Kentuckiana 2040 Metropolitan Transportation Plan**  
**FY 2020 - FY 2025 Transportation Improvement Program**  
**TPC Approval Scheduled for May 27, 2021**

TIP Action:	Remove project				
MTP Action:	N/A				
Exempt/Non-Exempt:	Exempt	Model Impact:	No change to model		
Project Sponsor:	Transit Authority of River City (TARC)	KIPDA ID:	2453	State ID:	N/A
County	Jefferson	Parent ID:	585	Group ID:	N/A
Project Name:	Purchase Two (2) 40' Buses		Total Estimated Cost in MTP (i.e. CK 2040):	N/A	
			Total Cost Programmed in TIP to Date:	\$1,012,740	
Funding Source:	Grants for Buses and Bus Facilities Formula Program (Section 5339)		Open to Public Date:	2022	
Description:	Purchase two (2) forty-foot, low-floor diesel buses.				
Purpose & Need:	TARC will purchase two (2) diesel buses to replace existing buses that have far exceeded their expected minimum useful life.				
FY 20-25 TIP Funding:	<del>FY 2020 Transit Capital phase with the following Section 5339 funds:--</del> <del>\$810,192 (Federal) + \$202,548 (Other) = \$1,012,740 (Total)</del>				
TIP Action:	Remove project				
MTP Action:	N/A				
Exempt/Non-Exempt:	Exempt	Model Impact:	No change to model		
Project Sponsor:	Transit Authority of River City (TARC)	KIPDA ID:	2462	State ID:	N/A
County	Jefferson	Parent ID:	585	Group ID:	N/A
Project Name:	Rehab Administrative Building		Total Estimated Cost in MTP (i.e. CK 2040):	N/A	
			Total Cost Programmed in TIP to Date:	\$500,000	
Funding Source:	Grants for Buses and Bus Facilities Formula Program (Section 5339)		Open to Public Date:	2021	
Description:	Rehabilitate an administrative facility with the goal of reducing operating costs by maintaining a state of good repair.				
Purpose & Need:	TARC will apply these funds to a rehabilitation project for an existing administrative building .				
FY 20-25 TIP Funding:	<del>FY 2021 Transit Capital phase with the following Section 5339 funds:--</del> <del>\$400,000 (Federal) + \$100,000 (Other) = \$500,000 (Total)</del>				

\*This phase will only be shown in the TIP for illustrative purposes since it is outside of the first four years of the FY20-25 TIP.

**Amendment 3**  
**Connecting Kentuckiana 2040 Metropolitan Transportation Plan**  
**FY 2020 - FY 2025 Transportation Improvement Program**  
**TPC Approval Scheduled for May 27, 2021**

TIP Action:	Add project				
MTP Action:	None				
Exempt/Non-Exempt:	Exempt	Model Impact:	No change to model		
Project Sponsor:	Transit Authority of River City (TARC)	KIPDA ID:	NEW	State ID:	N/A
County	Jefferson	Parent ID:	585	Group ID:	N/A
Project Name:	Rehab Training and Storage Facilities	Total Estimated Cost in MTP (i.e. CK 2040):		N/A	
		Total Cost Programmed in TIP to Date:		\$1,354,200	
Funding Source:	Grants for Buses and Bus Facilities Formula Program (Section 5339)		Open to Public Date:		2021
Description:	TARC will utilize these funds to renovate an operator training facility and the ventilation and heating system in its bus storage facility.				
Purpose & Need:	TARC will apply these funds to a rehabilitation project for an existing administrative building.				
FY 20-25 TIP Funding:	FY 2021 Transit Capital phase with the following Section 5339 funds: \$1,083,360 (Federal) + \$270,840 (Other) = \$1,354,200 (Total)				

\*This phase will only be shown in the TIP for illustrative purposes since it is outside of the first four years of the FY20-25 TIP.

# PERFORMANCE MANAGEMENT PLAN

UPDATED APRIL 2021



# KIPDA

Kentuckiana Regional Planning  
and Development Agency

# PERFORMANCE MANAGEMENT PLAN

for the  
Louisville/Jefferson County (KY-IN) Metropolitan Planning Organization

**UPDATED APRIL 2021**

502-266-6084  
[www.KIPDA.org](http://www.KIPDA.org)

# KIPDA PERFORMANCE MANAGEMENT PLAN

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## SUMMARY

Performance-based planning is a strategic approach that uses data to support investment decisions that help to achieve performance goals. Performance-based programming refers to the application of performance management within the project selection process. Aging infrastructure combined with limited funding resources make it challenging to address all of the needs of the transportation system simultaneously, and performance-based planning can prioritize improvements for the most effective and efficient use of those limited resources.

KIPDA's transportation planning process utilizes the performance-based planning and programming approach. This document specifically details both the federally-required and MPO-developed performance measures that will impact project selection within the MTP and TIP. The MTP uses data and performance trends to identify Focus Areas where investments will be prioritized. The KIPDA Project Management Process takes performance measures into consideration when programming projects in the TIP. Any future project that helps achieve performance targets will have a better opportunity to receive funding through the TIP than projects that do not directly address performance targets.

The Louisville/Jefferson County, KY-IN Metropolitan Planning Organization (MPO), Kentuckiana Regional Planning and Development Agency (KIPDA), has developed this *Performance Management Plan* (PMP) to utilize the framework established by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) by incorporating the National Performance Measures and Planning Factors as defined by MAP-21, the *Moving Ahead for Progress in the 21<sup>st</sup> Century Act* and continued with the FAST Act, *Fixing America's Surface Transportation Act*. MAP-21 provided a strong emphasis on performance-based transportation planning and required states and MPOs to incorporate performance measures, objectives, and targets into their planning and programming processes. The FAST Act, implemented in 2015 and which replaced MAP-21, sustained these requirements.

Per MAP-21 and the FAST Act, MPOs must transition to a performance-driven, outcome-based program that focuses on national transportation goals, increases accountability and transparency of the Federal-Aid Highway Program, and improves project decision-making. The FHWA-required and FTA-required performance measures were implemented on staggered timelines; therefore, the first deadlines by which MPOs must have established their first performance measure targets are staggered as well.

This PMP outlines all of the federally-required measures, both FHWA-required and FTA-required. KIPDA has also developed additional performance measures outlined in this plan and referred to as "MPO-developed performance measures." These were developed to support KIPDA's long-range, regional goals as identified in the Metropolitan Transportation Plan (MTP).

The Kentucky Transportation Cabinet (KYTC) and the Indiana Department of Transportation (INDOT) were allowed one year after the effective date of each federal Final Rule to develop statewide measures and targets consistent with federal guidelines. Within 180 days of the state DOTs' deadlines, KIPDA must finalize their federal performance measures and targets for the MPO region. Targets for all of the federal measures were established for the first time in 2018. Once targets were established, State DOTs and MPOs began tracking progress towards achieving those targets and will report to the appropriate federal agency. This process will repeat itself every four years.

Coordination and data-sharing among agencies at all levels is crucial in the performance-based planning process to ensure progress is made towards achieving state DOT and MPO targets.

## KIPDA PERFORMANCE MANAGEMENT PLAN

**TABLE 2: PERFORMANCE MEASURES, BASELINES, AND TARGETS**

SAFETY				
REQUIRED BY:	PERFORMANCE MEASURE	BASELINE		TARGET
FHWA	<b>S1</b> Number of Fatalities	<b>130.6</b>	Fatalities (2015-2019 5-year rolling average)	<b>148.4</b> Fatalities (2017-2021 5-year rolling average)
FHWA	<b>S2</b> Fatality Rate	<b>1.15</b>	Fatalities per 100 million VMT (2015-2019 5-year rolling average)	<b>1.40</b> Fatalities per 100 million VMT (2017-2021 5-year rolling average)
FHWA	<b>S3</b> Number of Serious Injuries	<b>761.3</b>	Serious Injuries (2015-2019 5-year rolling average)	<b>652.8</b> Serious Injuries (2017-2021 5-year rolling average)
FHWA	<b>S4</b> Serious Injury Rate	<b>6.69</b>	Serious Injuries per 100 million VMT (2015-2019 5-year rolling average)	<b>6.08</b> Serious Injuries per 100 million VMT (2017-2021 5-year rolling average)
FHWA	<b>S5</b> Number of Non-Motorized Fatalities and Serious Injuries	<b>116.2</b>	Non-Motorized Fatalities and Serious Injuries (2015-2019 5-year rolling average)	<b>119.1</b> Non-Motorized Fatalities and Serious Injuries (2017-2021 5-year rolling average)
MPO	<b>S6</b> Crash Rate	399.0	Crashes per 100 million VMT (2012-2016 5-year rolling average)	Reduce by 20% by 2040 to 319 crashes per 100 million VMT

## KIPDA PERFORMANCE MANAGEMENT PLAN

### State Targets

- Kentucky
  - KYTC set the following statewide targets in 2018:

Kentucky Statewide Targets (2018)		
PM 2: Asset Management	Target	
<i>Pavement Performance</i>	2-Year (2020)	4-Year (2022)
% Good Interstate	50.0%	50.0%
% Poor Interstate	2.0%	4.0% <sup>1</sup>
% Good Non-Interstate NHS	35.0%	35.0%
% Poor Non-Interstate NHS	4.0%	4.0%

<sup>1</sup>In 2020, KYTC adjusted the % Poor Interstate four-year statewide target to 4.0%.

- Indiana
  - INDOT set the following statewide targets in 2018:

Indiana Statewide Targets (2018)		
PM 2: Asset Management	Target	
<i>Pavement Performance</i>	2-Year (2020)	4-Year (2022)
% Good Interstate	84.2%	50.0% <sup>2</sup>
% Poor Interstate	0.8%	0.8%
% Good Non-Interstate NHS	78.7%	40.0% <sup>3</sup>
% Poor Non-Interstate NHS	3.1%	3.1%

<sup>2</sup>In 2020, INDOT adjusted the % Good Interstate four-year statewide target to 50.0%.

<sup>3</sup>In 2020, INDOT adjusted the % Good Non-Interstate NHS to 40.0%.

### Targets (as required by FHWA)

Per federal regulation, the targets that KIPDA will report in its 2018 Baseline Performance Period Report are 2022 targets. The targets are detailed in the following table. The KIPDA Transportation Policy committee adopted these targets on October 25, 2018.

KIPDA MPO Targets (2018)	
PM 2: Asset Management	Target
<i>Pavement Performance</i>	4-Year (2022)
% Good Interstate	50.0%
% Poor Interstate	1.0%
% Good Non-Interstate NHS	27.0%
% Poor Non-Interstate NHS	3.5%

### Target-Setting Methodology

Statewide baselines and targets from each state were reviewed to examine each state's approach to target setting. Due to the difference in each state's approach and in the baseline conditions of each state's pavements, the 4-Year Targets established by each state DOT are significantly different. INDOT has chosen to set their statewide targets for pavement condition at the baseline percentages. KYTC has

## KIPDA PERFORMANCE MANAGEMENT PLAN

### State Targets

- Kentucky
  - KYTC set the following statewide targets in 2018:

Kentucky Statewide Targets (2018)		
PM 2: Asset Management	Target	
NHS Bridge Performance	2-Year (2020)	4-Year (2022)
% Good Condition by Deck Area	35.0%	27.0% <sup>1</sup>
% Poor Condition by Deck Area	3.7%	3.6% <sup>2</sup>

<sup>1</sup>In 2020, KYTC adjusted the % Good Condition by Deck Area four-year statewide target to 27.0%.

<sup>2</sup>In 2020, KYTC adjusted the % Poor Condition by Deck Area four-year statewide target to 3.6%.

- Indiana
  - INDOT set the following statewide targets in 2018:

Indiana Statewide Targets (2018)		
PM 2: Asset Management	Target	
NHS Bridge Performance	2-Year (2020)	4-Year (2022)
% Good Condition by Deck Area	48.3%	47.2% <sup>3</sup>
% Poor Condition by Deck Area	2.6%	3.1% <sup>4</sup>

<sup>3</sup>In 2020, KYTC adjusted the % Good Condition by Deck Area four-year statewide target to 47.2%.

<sup>4</sup>In 2020, KYTC adjusted the % Poor Condition by Deck Area four-year statewide target to 3.1%.

### Targets (as required by FHWA)

Per federal regulation, the targets that KIPDA will report in its 2018 Baseline Performance Period Report are 2022 targets. The targets are detailed in the following table. The KIPDA Transportation Policy committee adopted this target on October 25, 2018.

KIPDA MPO Targets (2018)	
PM 2: Asset Management	Target
NHS Bridge Performance	4-Year (2022)
% Good Condition by Deck Area	30.5%
% Poor Condition by Deck Area	7.1%

### Target-Setting Methodology

Statewide baselines and targets from each state were reviewed to examine each state's approach to target setting. Due to the difference in each state's approach and in the baseline conditions of each state's bridges, the 4-Year Targets established by each state DOT are significantly different. INDOT has chosen to set their statewide targets for bridge condition at the baseline percentages. KYTC has chosen to set their targets at levels that are relatively worse than (i.e. less percentage of deck area in Good condition, and more percentage of deck area in Poor condition) the baseline conditions in Kentucky. INDOT's bridges, both statewide and in the KIPDA Region, are reported as being significantly better than

## KIPDA PERFORMANCE MANAGEMENT PLAN

### F3 - Truck Travel Time Reliability on the Interstate - 490.607

#### **Detailed Description**

This performance measure seeks to increase the percent of person-miles traveled on the Interstate that are reliable. Please see the [Detailed Description section under “V1 – Level of Travel Time Reliability \(LOTTR\) on the Interstate - 490.507\(a\)\(1\)”](#) for further description of travel time reliability.

This performance measure is included in KIPDA’s Congestion Mitigation Process (CMP) because it relates to reducing congestion; therefore, the strategies discussed in the CMP might have an impact on meeting this measure’s target.

#### **Data Sources and Review Frequency**

- Travel Time Data: [National Performance Management Research Data Set \(NPMRDS\)](#)
  - This data is available on an ongoing basis, thus it will be updated yearly.

#### **Historical Data**

There is very little historical data since travel time data has only been collected and made available to state DOTs and MPOs in response to the PM 3 Final Rule being published in 2017.

#### **Baseline Data**

A unified baseline condition for the entire KIPDA MPO region is currently unavailable. The following table details the separate baselines for the three Kentucky MPO counties and the two Indiana MPO counties in the KIPDA region during 2017:

PM 3: System Performance		KENTUCKY MPO	INDIANA MPO	KIPDA MPO
Truck Travel Time Reliability (TTTR) on Interstates	% of the Interstate system mileage providing for reliable truck travel time	1.35	1.20	TBD

#### **State Targets**

- Kentucky
  - KYTC set the following two-year statewide target in 2018, and adjusted the four-year statewide target in 2020:

PM 3: System Performance		KENTUCKY STATEWIDE	
		2-YEAR TARGET	4-YEAR TARGET
Truck Travel Time Reliability (TTTR) on Interstates	% of the Interstate system mileage providing for reliable truck travel time	1.19	1.30

## KIPDA PERFORMANCE MANAGEMENT PLAN

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- Indiana

- INDOT set the following two-year statewide target in 2018, and adjusted the four-year statewide target in 2020:

PM 3: System Performance		INDIANA STATEWIDE	
		2-YEAR TARGET	4-YEAR TARGET
Truck Travel Time Reliability (TTTR) on Interstates	% of the Interstate system mileage providing for reliable truck travel time	1.27	1.30

### *Target (as required by FHWA)*

KIPDA is not establishing quantifiable targets at this time. KIPDA is committed to support the statewide targets set forth by KYTC and INDOT by planning and programming projects that contribute to the accomplishment of each state's Truck Travel Time Reliability (TTTR) targets.

### *Target-Setting Methodology*

KIPDA was not able to analyze the enormous amount of data required to calculate travel time reliability using NPMRDS and meet the federal deadline to report targets. The separate Kentucky MPO and Indiana MPO baselines were provided to KIPDA by their respective state DOTs. A unified MPO-wide baseline has not been calculated, and therefore a quantifiable target has not been set. In compliance with federal regulation, KIPDA has elected to support each state's targets. However, it continues to be a priority to identify unified MPO-wide baselines and establish targets on Truck Travel Time Reliability (TTTR).

## AIR QUALITY CONFORMITY

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The Louisville, KY-IN transportation planning study area consists of Clark and Floyd counties and 0.1 square miles of Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties and approximately 4 square miles of Shelby County in Kentucky. Much of this area coincides with the local ozone nonattainment area. In the past, a portion of the planning study area also coincided with a local PM 2.5 nonattainment area, but that standard was revoked in April, 2015. The Louisville, KY-IN maintenance area for the 1997 8-hour ozone standard consisted of Clark and Floyd counties, IN, and Bullitt, Jefferson, and Oldham counties, KY. It was designated as a basic nonattainment area in June, 2004 and redesignated as an attainment area with a maintenance status in July, 2007. The 1997 8-hour ozone standard was revoked for the local area in April, 2015, and at that time, it was not necessary for the local area to determine conformity. (However, the local area was still eligible to receive Congestion Mitigation/Air Quality funding). In June 2018, the former Louisville, KY-IN 1997 ozone maintenance area was designated as a marginal nonattainment area for the 2015 8-hour ozone standard. One of the requirements of this designation as a nonattainment area is that it will once again be necessary to determine conformity for the local area.

KIPDA is amending *Connecting Kentuckiana 2040*, the metropolitan transportation plan (MTP) and the FY 2021 – FY 2025 Transportation Improvement Program (TIP). This conformity analysis will support conformity determinations by the metropolitan planning organization and the U. S. Department of Transportation agencies for both documents. This analysis is intended to support determinations of conformity under both the 1997 and 2015 8-hour ozone standards.

### CONFORMITY UNDER THE 1997 AND 2015 8-HOUR OZONE STANDARDS

When an area such as the Louisville area becomes nonattainment, the area must undertake a process known as conformity. This process provides a linkage between transportation planning and air quality planning. One of the key activities of conformity is to quantify the level of emissions of the air pollutant(s) and/or precursor(s) for certain analysis years and compare those levels to the motor vehicle emission budgets (MVEBs)—if they exist. The MVEBs limit the amount of a pollutant or precursor that can be emitted. If MVEBs do not exist, the area must rely on interim tests, such as comparing the emissions to the level of emissions in a baseyear, to determine conformity. The baseyear would be set by US EPA when the standard is promulgated.

Subsequent to being designated as nonattainment of the 1997 8-hour ozone standard and prior to being redesignated as attainment of the standard, the Louisville area

relied on the use of interim tests to demonstrate conformity. These tests had been established during a 2004 update to the federal conformity rule. When the Louisville area was designated as nonattainment of the 2015 8-hour ozone standard, there were no MVEBs for that standard. However, there were MVEBs for the 1997 8-hour ozone standard, and they were used in the process of determining conformity to both the 1997 and 2015 standards.

When the local area was designated as nonattainment of the 1997 8-hour ozone standard, the air quality agencies with responsibility for the local area were charged with the additional responsibility to develop a set of actions that could be taken to reduce pollutant/precursor emissions. These actions were to be included in air quality plans known as State Implementation Plans (SIPs). Since the Louisville nonattainment area is a bi-state area, these sets of the actions to reduce precursor emissions were to be incorporated into the Indiana and Kentucky SIPs. It was during this process that MVEBs were established. Originally, the SIPs were to include sets of actions to bring the local area into attainment of the ozone standard. This type of SIP is known as an attainment demonstration. However, while these SIPs were being developed, the data from the air quality monitors in the area indicated that the 1997 8-hour ozone standard had been met. With this data in hand, the air quality agencies were able to submit a SIP known as a redesignation request instead. The establishment of the MVEBs was one of the components of the redesignation request. Since the SIPs were redesignation requests for ozone, the MVEBs were established for the precursors of ozone -- volatile organic compounds and oxides of Nitrogen.

## CONSULTATION FOR *CONNECTING KENTUCKIANA 2040*

The first step in determining conformity of *Connecting Kentuckiana 2040* was to consult with the interagency consultation (IAC) group concerning matters not explicitly determined by the conformity rule. Conformity under the 1997 8-hour ozone standard had been previously determined. Therefore, many of the issues normally arising in conformity had undergone consultation previously. Since these issues were not raised during consultation this time, the portions of the analysis involving those issues were accomplished consistent with established practice.

A consultation zoom meeting was held on March 4 to discuss issues relative to amendment 3 of the MTP. It involved a review and discussion of the following items:

- (a) important dates in the schedule for the amendment;
  - April 9 -- Regional Emissions (Air Quality) Analysis completed
  - April 16 -- Public Review begins
  - May 12 -- Action by the Transportation Technical Coordinating Committee
  - May 27 -- Action by the Transportation Policy Committee

May 28 -- Documentation sent to review agencies for the federal conformity determination;

- (b) a draft list of projects—sent to the IAC with consultation notice—included in accompanying documentation;
- (c) the horizon year of the transportation plan—2040;
- (d) the proposed conformity test methodology/ies and analysis years—see the discussion of issues and ESTABLISHED PRACTICE sections below;
- (e) the pollutant(s)/precursor(s) of concern and the motor vehicle emissions budget(s), if applicable—see table 2 at the end of the report;
- (f) information concerning the inputs for the travel demand model and the approved emissions model—see the issues section below, the list of projects included in accompanying documentation, and the items concerning the travel demand model and emissions model under Other Planning Issues; and
- (g) a listing of any transportation control measures (TCMs) in SIPs, if applicable—there are none.

## Issues

### Discussion of Projects

KIPDA staff had provided the IAC with a list of 10 projects that will be amended in *Connecting Kentuckiana 2040*. The projects are a mix of new projects and projects already in the MTP that were being amended. Key details about the projects were presented in the list, including recommendations on whether each project was exempt or non-exempt and how the projects were included in or excluded from the regional travel demand model.

Points of discussion of the projects included:

- **Additional Lanes on I-64 in Floyd County, KIPDA ID 2889:** KIPDA staff had received recent information from INDOT, the project sponsor, that the project description had changed. The changes included additional travel lanes on I-64 from Spring St in New Albany to the US 150 interchange, additional travel lanes on I-265 from I-64 to the State St interchange, and additional lanes on the ramps connecting I-64 and I-265. During the discussion of this project, it was mentioned that these changes will necessitate recognizing a change in the scope of the project and that these project changes will need to be reflected in the travel model.

**Conclusion: The IAC members, after discussing the details of the project listed above, accepted the recommendations concerning the incorporation of this project and the other projects described in the documentation into the regional emissions analysis.**

#### Discussion of the Conformity Analysis

The following items of the conformity analysis were discussed.

- (1) KIPDA staff discussed the key components of the conformity analysis that are expected to be presented to the KIPDA TPC in May. The analysis years will be the ones that were used when the existing MTP was previously amended, except for 2020. Since 2020 is now in the past, it will no longer be an analysis year. The analysis years will be 2025, 2030, 2035, and 2040.
- (2) The Budget Test utilizing the Year 2020 Motor Vehicle Emissions Budgets created for the 1997 8-Hour Ozone Standard will continue to be used until a new set of budgets are established. By not exceeding these budgets in the year 2025, 2030, 2035, and 2040 travel model scenarios, *Connecting Kentuckiana 2040* will demonstrate conformity to both the 1997 and 2015 8-Hour Ozone Standards.
- (3) The pollutants of concern for the analysis are the precursors of Ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NO<sub>x</sub>). The emission budgets for these pollutants are 20,793 kg/day and 26,726 kg/day, respectively.
- (4) The newest version of the MOVES emissions model, MOVES 3.0, will be used for the analysis.

NOTE: (See also the "Analysis Years and Conformity Tests" portion of the "ESTABLISHED PRACTICE" section below for more information on these issues.)

#### Discussion of Schedule

KIPDA staff discussed the schedule for amendment 3 as shown above. There were no questions concerning the amendment schedule.

#### Other items for discussion

KIPDA staff offered the opportunity for any other business or questions to be brought to the IAC. There was no other business discussed.

#### ESTABLISHED PRACTICE

In addition to the issues discussed during consultation, there were several issues which were not explicitly discussed or received little discussion during the consultation zoom meeting of March 4, but which had impacts on the analysis.

Many of these issues had been discussed during previous consultations. These issues were handled in a manner consistent with the previous established practice. The more prominent issues are discussed below.

#### Relationship of MTP and TIP for Conformity Purposes

The Transportation Improvement Program (TIP) is maintained as a subset of the Metropolitan Transportation Plan (MTP). Therefore, the conformity determination for the MTP will serve as the conformity determination for the TIP.

**Conclusion: The IAC members are informed of this from time to time in order to clarify the conformity determination for the MTP also serves as the conformity determination for the TIP.**

#### Issues related to the KIPDA travel demand forecasting model

During recent changes to the MTP, there were two changes of note to the KIPDA travel demand forecasting model.

- (1) First, the proposed toll structure for the Louisville Southern Indiana Ohio River Bridges project changed in the last few years. Changes were made to the KIPDA travel demand forecasting model to reflect the changes in the toll structure.
- (2) During 2017 and 2018, KIPDA staff have updated and calibrated the travel demand forecasting model. This activity involved updating the inputs to the model and developing new values for the parameters of the model. The resulting model was considered calibrated when the model outputs matched observed data (e.g. HPMS VMT), within reason, for the baseyear. This update established 2015 as the baseyear (the year on which calibration was based) for the model.

**Conclusion: The IAC members have been informed that the KIPDA travel demand forecasting model has been updated and calibrated and that 2015 is now the baseyear for the model.**

#### Analysis Years and Conformity Tests

Motor Vehicle Emissions Budgets (MVEBs) for the 1997 8-hour ozone standard were approved by EPA in July, 2007. The MVEBs were for the precursors of ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NOx), The Federal Register notice can be found at 72 FR 36601. The budgets are shown in Table 2 at the end of this document. Since there are MVEBs for the ozone precursors, the conformity rule requires that ozone analyses be done for the attainment year and the last year of the transportation plan. In addition, other intermittent year(s) are required such that no two analysis years are more than ten years apart. The maintenance plan established when the local area was redesignated established MVEBs for VOCs and NOx for 2003 (the attainment year) and 2020 (the last year of the maintenance plan). Since the attainment year and the last year of the

maintenance plan are now in the past, those years are no longer included in the analysis.

In order to have the required analysis years, several changes were made in recent years. Years have been added to the list of analysis years, and later, when those years were passed, they were removed. When the MTP was updated in 2020, the horizon year of the plan was being changed to 2040, and that year had to be added to the analysis years. At the same time, in order to allow for more orderly transition as time progressed, 2025 and 2035 have been added as analysis years, allowing for analysis years every five years. By having the analysis years five years apart throughout the life of the MTP, it was noted that there would always be an analysis year within five years of the time of the analysis. Further, when the horizon year of the MTP is extended, that year will be added as an analysis year. Otherwise, the analysis years can remain constant except for the removal of an analysis year when it moves to the past. This year 2020 moved to the past, and it was removed from the list of analysis years. This left the years 2025, 2030, 2035, and 2040 as analysis years.

**Conclusion: The established practice is that the analysis years and conformity tests for the regional emissions analysis are as shown in the table below. Years prior to the present year have been removed from the list.**

1997 8-hour Ozone Standard	
Analysis Year	Conformity Test(s)
2025	Budget test using the 2020 MVEBs for the 1997 8-hour standard
2030	Budget test using the 2020 MVEBs for the 1997 8-hour standard
2035	Budget test using the 2020 MVEBs for the 1997 8-hour standard
2040	Budget test using the 2020 MVEBs for the 1997 8-hour standard

#### Vehicle Registration (Fleet Mix) Data

At various times in the past, new vehicle registration data has been provided for use in developing pollutant emissions. This vehicle registration data has been reviewed and accepted by the IAC. The data being used for the Indiana counties has been updated to 2017, and the data being used for the Kentucky counties is for 2018. These data represent the most recent information available for this issue.

**Conclusion: Based on a consensus of the IAC members, vehicle registration data for 2017 for the Indiana counties and for 2018 for the Kentucky counties is now being used in developing emission estimates.**

## CONFORMITY OF *CONNECTING KENTUCKIANA 2040*

The MTP, *Connecting Kentuckiana 2040*, was examined to determine if it met the requirements of the conformity rule under the 1997 and 2015 8-hour ozone standards. In general, the process leading to a conformity determination has two major components:

- (1) a regional emissions (air quality) analysis to determine that air pollutant emissions do not exceed the budgets set in the SIPs, if applicable, or the emission levels for a given base year; and
- (2) a monitoring of the progress in implementation of the Transportation Control Measures (TCMs) contained in the SIPs.

In the past, consultation with the state and local air quality agencies and EPA had determined that there are no approved TCMs in the SIPs of Indiana and Kentucky. Therefore, it is possible to show conformity of *Connecting Kentuckiana 2040* simply by determining that the air pollutant emissions do not exceed the budgets in the SIPs or the base year emissions.

## ANALYSIS PROCESS

The process of calculating the regional emissions for *Connecting Kentuckiana 2040* involved three main procedures. The first procedure was a review of the projects to determine which projects needed to be included in the regional emissions analysis. The second procedure was to perform the calculations necessary to quantify the certain measures of travel behavior. The third procedure was to calculate the pollutant / precursor emissions. These activities are discussed below in greater detail.

### *Project Review*

The first procedure was to review the projects to determine which projects were exempt or non-exempt and which projects were “regionally significant.” The combination of these two considerations was the basis for determining which projects were recommended for inclusion in the regional emissions analysis. During the amendment of *Connecting Kentuckiana 2040*, a group of projects had been proposed for the plan. These projects were reviewed by KIPDA staff, who prepared a list of the projects with information about the projects and a staff recommendation concerning the project’s status relative to being exempt, non-exempt, etc. There is usually a straightforward explanation for why projects are included in or excluded

from the analysis and why they are analyzed as they are. Most of the projects which were excluded were exempt projects as defined in the Code of Federal Regulations in 40 CFR 93.126 and 40 CFR 93.127.

During consultation, this list was reviewed and accepted by the IAC as described under the section entitled "CONSULTATION FOR *CONNECTING KENTUCKIANA 2040*." (please see above.) Those projects in *Connecting Kentuckiana 2040* which were not changed were analyzed as they had been previously. The projects which were newly added to the MTP or had been changed in *Connecting Kentuckiana 2040* were analyzed as indicated on the list provided to IAC.

In addition, there were several projects which could not be analyzed using the travel model. In the past, most of these projects had been evaluated using spreadsheet methods factors. Since the MOVES emissions model was being used in the inventory mode, emission factors were not available for this analysis. However, experience had shown that the emission impacts for these projects were always small and positive (i.e. emission reducing). Therefore, it is reasonable to predict that the emission impacts of these projects—if they could be quantified—would decrease the emissions shown in the tables at the end of this document.

Also, there was one project affecting Bullitt County that could not be included in the travel model. Unlike the projects described in the paragraph above, this project could have the potential to increase emissions. Therefore, a special effort was made to include its impacts in the analysis of travel behavior impacts and, consequently, in the regional emissions analysis. This project is the relocated (southern) section of US 31E. This project, which had been discussed during consultation in the past, involves the relocation of a small (approximately 0.2 mile) section of US 31E from Nelson County (outside of the nonattainment area) to Bullitt County (inside the ozone nonattainment area) during the reconstruction of that road. Estimates of the VMT for this project were developed using a spreadsheet approach. The VMT estimates were the product of the estimated traffic volumes for each of the analysis years and the length of the relocated section in Bullitt County. The VMT estimates for this project were then added to other Bullitt County VMT estimates of the same functional class. Consequently, the VMT estimates from this project were included with the other Bullitt County VMT, and the emissions in Bullitt County associated with this project were included in the overall emission estimates for Bullitt County.

### *Calculation of Travel-Related Information*

The analysis of the travel behavior impacts for the nonattainment area primarily involved using the KIPDA travel demand forecasting model to determine measures of travel such as vehicle-miles-traveled (VMT) and speed. The method for determining these measures was to input the appropriate roadway and transit information into the

model and to run the model using the appropriate socioeconomic information for a given analysis year. This analysis is explained below in further detail in the sections concerning the KIPDA travel demand forecasting model and adjustment factors for travel model output.

#### KIPDA Travel Demand Forecasting Model

The KIPDA travel demand forecasting model is a mathematical model which relates travel to the transportation system and basic socioeconomic information. The domain of the model is a study area which includes the Louisville (KY-IN) Metropolitan Planning Area. The Louisville (KY-IN) Metropolitan Planning Area consists of Clark and Floyd counties, and 0.1 square miles in Harrison County in Indiana, and Bullitt, Jefferson, and Oldham counties and approximately 4 square miles in Shelby County in Kentucky. This area is divided into 984 smaller units called traffic analysis zones.

As previously mentioned, the KIPDA regional travel demand forecasting model was updated and calibrated recently. This update established 2015 as the new base year for the model. The model update utilized the information incorporated into the travel model during previous updates. In particular, information from the 2000 KIPDA Household Travel Survey had been previously incorporated. Information from 2010 Census, the 2012-2016 American Community Survey, the 1990 and 1995 National Personal Transportation Surveys, and the 2001 and 2009 National Household Travel Surveys was incorporated to update the previous source data, particularly the 2000 KIPDA Household Travel Survey. During the update, the model parameters were adjusted such that the model output matched—within reason—three main calibration criteria based on measured data. These criteria were: (1) the total daily VMT for all highway facilities except local roads for the region; (2) the distribution of trip lengths (duration in time) for each of the main trip purposes used in the model; and (3) highway traffic volumes crossing the Ohio River screenline. The result of the update was a travel model which generally replicated travel in the Louisville area for 2015. The updated travel model was used in the regional emissions analysis.

The KIPDA travel demand forecasting model uses the standard four steps of modeling: trip generation, trip distribution, mode choice, and trip assignment. In addition, it considers travel by vehicles entering, leaving, and crossing the study area. These types of trips are known as external-internal, internal-external, and external-external, respectively. The internal ends of these trips are determined by the methods described below for internal-internal travel. The external ends are determined from the volume of traffic crossing the study area boundary at any of the 46 external stations.

Trip generation is the process of determining the number of unlinked trip ends--called productions and attractions--and their spatial distribution based on socioeconomic variables such as households and employment. Trip rates used to define these

relationships were derived from the travel data collection efforts described above. This information was supplemented by use of the *National Cooperative Highway Research Program Report #365* and the Institute of Transportation Engineers' *Trip Generation Report*. The KIPDA travel demand model uses three internal-internal trip purposes and utilizes different trip rates for each. Internal-internal trips are those which have both ends inside the modeling domain. The three purposes are home-based work, home-based other, and non home-based.

Trip distribution is the process of linking the trip ends thereby creating trips which traverse the area. The KIPDA travel model uses a gravity model to link all trips except the external-external ones. The gravity model is based on the principle that productions are linked to attractions as a direct function of the number of attractions of a zone and as an inverse function of the travel time between zones. This inverse function of travel time is used to generate parameters called friction factors which, in turn, direct the gravity model. The friction factors used in the gravity model were developed as part of the calibration effort performed during the model update. In addition, information from a study which investigated the behavior of travelers crossing the Ohio River and traffic count information from years near 2015 were utilized to develop additional parameters called K-factors. The K-factors are used by the model to ensure that it is predicting the correct volume of traffic crossing the Ohio River.

Mode choice is the process used to separate the trips which use transit from those which use automobiles. It is also used to separate the auto drive-alone trips from auto shared-ride trips. In some previous KIPDA travel demand models, mode choice was based primarily on information provided by the *TARC Travel Forecasting Study* from some time ago. In that model, the user's benefit or utility was calculated for each mode based on zonal socioeconomic characteristics and the cost and time of the trip using the various modes. A nested logit model was used to determine the probability of the trip being made by each of the modes. This probability was then multiplied by the number of trips between zones to determine the number of trips by each mode.

As previously stated, the conformity analysis for *Connecting Kentuckiana 2040* utilizes transit information from the previous travel demand model. The results of the 2004 TARC on-board survey had been used to factor the data in the previous transit files. This was deemed acceptable for several reasons. The primary reason was that the transit network envisioned by *Connecting Kentuckiana 2040* is essentially the same as the existing one. In addition, the number of total trips from the two models was similar. Therefore, the use of the factored transit trip information from previous travel models did not significantly change the proportion of trips allocated to transit. Finally, the proportion of trips utilizing transit is less than 2% of the total trips. So small differences in the number of transit trips should provide a negligible effect on overall travel.

Trip assignment is the process used to determine which links of the network a trip will use. There are several assignment schemes which may be used. Two of the more common schemes are All-or-Nothing (AON)--in which all trips between two zones follow the shortest time path--and Stochastic--in which trips between two zones may be assigned to several paths based on their impedances or travel times. It is not uncommon for travel models to use several assignment schemes in sequence to converge to a better assignment. A sequence commonly used involves using several AONs with the traffic volumes reported at the end of each scheme being a weighted average of the volumes from the most recent scheme and the volumes from the previous schemes. A capacity restraint provision is used to adjust travel times between assignment schemes. This sequence is called an equilibrium assignment. The KIPDA travel model uses an equilibrium assignment which converges when the change in system-wide travel time over successive iterations is estimated to be within 0.0001 or less.

Tolls are being used as a means of providing for a portion of the cost of the Louisville Southern Indiana Ohio River Bridges project. To reflect the effect of the tolls in the KIPDA travel model, time penalties have been used in the model on the bridges where tolls are being collected. As mentioned above, the toll structure was recently changed. To reflect this in the MTP update, the time penalties used in the KIPDA travel model were likewise changed to reflect the effect of the new toll structure.

The output from the KIPDA travel model is in the form of a series of links with each link having certain associated data such as number of lanes, capacity, facility type, area type, functional class, and volume. This data allows for the calculation of other link information such as vehicle-miles-traveled (VMT). The VMT can be calculated as the product of the volume of traffic using a link times the distance (length) of the link.

#### Adjustment Factors for Travel Model Output

The VMT and speeds from the travel demand model were adjusted before being used in the calculation of regional emissions. The purpose of these adjustments was to reconcile the model output with travel estimates from other sources, such as the Highway Performance Monitoring System (HPMS) estimates of VMT. To perform this adjustment, factors were developed for the baseyear of the model using HPMS or other estimates and applied to model output for other years.

The development of the VMT adjustment factors involved comparing the VMT outputs of the travel demand model to the HPMS VMT estimates for 2015. Factors were developed to adjust the model output to account for variation between the model and HPMS within each of the counties. To do this, the VMT from the 2015 model run was tabulated by county and functional classification. The VMT estimates derived from the model were then compared to the HPMS VMT estimates for 2015 to

develop adjustment factors to be applied to the model output for subsequent years. The 8-hour ozone analysis is based on a level of traffic and the accompanying emissions expected on a typical summer weekday. For that analysis, the adjustment factors were increased by 2.9% to reflect the higher volume of traffic that can be expected on a typical summer weekday relative to the annual average daily traffic. The adjustment factors for VMT were developed on a functional classification basis for each county.

The development of the speed adjustment factors involved a similar process. The outputs of the travel demand model were compared to estimates of speed based on the equations of the Highway Economic Reporting System (HERS).

The HERS equations were used to estimate speeds on 6239 sections for five functional classifications of urban roadways and 2278 sections for five functional classifications of rural roadways. The speeds from these roadway sections were used to determine the average speed for each of five rural and urban functional classes. The speeds used in the travel model were also averaged for each of the five rural and urban functional classes for which HERS estimates had been developed. The speed adjustment factor for each of these functional classes was calculated as the ratio of the average speed using the HERS equations to the average speed using the travel model data.

There were not many HPMS minor collector and local roadway sections with data that allowed for the calculation of adjustment factors. Since the model contained the minor collector roadways in the area and these roadways were similar to the major collector roadways in the area, the adjustment factor for the rural major collectors was used for the rural minor collector roadways, and the adjustment factor for the urban major collectors was used for the urban minor collector roadways.

The procedures described above produced speed adjustment factors for all functional classes except rural and urban local roads and ramps. (Ramps are not officially a separate functional class, but the speed behavior of traffic on ramps is not expected to be like that of any other functional class. Therefore, the ramps were treated as a separate "functional class.") There was not sufficient data to estimate speeds for the roadways of these classes. For rural and urban local roads and ramps, the speeds in the travel model were used without adjustment (i.e. the speed adjustment factor for rural and urban local roads and for ramps = 1).

### *Calculation of Pollutant/Precursor Emissions*

The calculation of the pollutant/precursor emissions for the nonattainment area involved using the adjusted output data from the KIPDA travel demand forecasting model as input to the MOVES model. KIPDA staff provided adjusted travel model

output data in the form of vehicle-miles-traveled (VMT), VMT by speed bin, and VMT fractions by speed bin by county and by MOBILE 6 facility type to the staff of the Louisville Metro Air Pollution Control District (LMAPCD). LMAPCD staff utilized this data along with other necessary inputs to run the MOVES model and develop emission estimates for volatile organic compounds (VOCs) and oxides of Nitrogen (NO<sub>x</sub>). They then provided these estimates to KIPDA staff. This analysis is explained below in further detail in the section below.

#### MOVES Emissions Model

As previously mentioned, the Louisville region is a nonattainment area for the pollutant ozone and must therefore control the precursors of ozone, VOCs and NO<sub>x</sub>. The emission estimates for VOCs and NO<sub>x</sub> were determined using the MOVES 3.0 emissions model. The staff of the Louisville Metro Air Pollution Control District (LMAPCD) produced the emissions for all of the counties in the nonattainment area. The methodology used in calculating these emission estimates is discussed below.

There are a number of factors affecting the emission estimates developed from the MOVES model. In the past, these factors included the presence of inspection/maintenance (I/M) programs in some of the counties. During that time period, the VMT generated in Clark, Floyd, and Jefferson (KY) counties came from some vehicles subject to an I/M program and from some vehicles not subject to an I/M program. The I/M program in Clark and Floyd counties was discontinued at the end of 2006. The I/M program in Jefferson County (KY) was discontinued in 2003. Therefore, these programs are no longer a factor in estimating emissions.

One of the other factors is the fuel used by the vehicles in the various counties. The fuels which are used in Clark, Floyd, and Jefferson counties include reduced Reid vapor pressure gasoline (RVP) and reformulated gasoline (RFG). While RFG is used in some portions of Bullitt and Oldham counties, unregulated gasoline is used in the other portions of those counties as well as the areas adjacent to the nonattainment area. Vehicles from these other areas can be expected to travel in the Clark, Floyd, and Jefferson (KY) counties also. In the past, the emission factors (from the MOBILE 6 model) for Clark, Floyd, and Jefferson (KY) counties used in the air quality analysis varied by county because they represent a VMT-weighted composite based on an estimate of travel in each county by vehicles from the various portions of the region. For this analysis, the MOVES model was used in what is known as the inventory mode. Using the inventory mode, it is possible to define the fuel characteristics and the presence of an I/M program for each county, but it is not possible to represent the effect of travel in a county by vehicles from other counties. Therefore, the use of composite emission factors was not possible. Other than that, the assumptions used in the analysis were consistent with those of the appropriate air quality agency for each of the counties. For Clark and Floyd counties, the assumptions of the Indiana Department of Environmental Management (IDEM) were used. Some assumptions of

LMAPCD were also used for Clark and Floyd counties. For Jefferson County (KY), the assumptions of the LMAPCD were used. These assumptions had been previously reviewed and accepted by the IAC partners.

The assumptions used in developing the emissions for Clark, Floyd, and Jefferson (KY) counties were the same as those that were used in developing the ozone budget update (for VOCs and NO<sub>x</sub>) in 2003 with a few exceptions where newer data was incorporated. The changes which affected the VOC and NO<sub>x</sub> emissions included:

- (1) improved consistency and completeness of gasoline data provided with the new MOVES model,
- (2) the incorporation of newer vehicle registration data (for 2017) for Clark and Floyd counties (provided by INDOT),
- (3) the development and use of newer vehicle registration data (for 2018) for Jefferson County (KY), and
- (4) improvements in internal model calculations to account for emission controls, driving profiles and engine characteristics.

The emissions for Bullitt and Oldham counties were also developed by LMAPCD. Most of the inputs to the MOVES model were defaults and/or data used that was consistent with previous SIPs. As mentioned above, RFG is used in some portions (the “original” portions) of Bullitt and Oldham counties, and unregulated gasoline is used in the other portions (the “new” portions) of those counties as well as the areas adjacent to the nonattainment area. The “original” portions and “new” portions refer to whether a portion of these counties had originally designated as a nonattainment/maintenance status for the 1-hour ozone standard or had only been designated under the 8-hour ozone standard. Neither portion of either county had an I/M program. So it was not necessary to have I/M input information for MOVES. However, it was possible that the gasoline formulation in the different portions of these counties could be different.

It was determined—based on data provided by US EPA for the MOVES model—that the gasoline formulation for Bullitt and Oldham counties is essentially the same as that for Jefferson County with respect to the use of RFG. Since the use of the MOVES model in the inventory mode does not allow for the characteristics of different blends of gasoline within the same county, the gasoline formulations of Bullitt and Oldham counties was modeled the same as for Jefferson County.

The assumptions used for Bullitt and Oldham counties were consistent with those for the 2003 ozone budget update with the following exceptions:

- (1) improved consistency and completeness of gasoline data provided with the new MOVES model,
- (2) the characterization of gasolines described in the previous paragraph
- (3) new 2018 vehicle registration data for Bullitt and Oldham counties, and

- (4) improvements in internal model calculations to account for emission controls, driving profiles and engine characteristics.

LMAPCD developed emission estimates of VOCs and NO<sub>x</sub> using the MOVES model. To review, the following steps were undertaken.

- (1) LMAPCD staff received (from KIPDA staff) the adjusted travel model output in the form of VMT, VMT by speed bin, and VMT fractions by speed bin, all by county and by MOBILE facility type by analysis year.
- (2) LMAPCD reformatted the data from KIPDA to prepare it as input to the MOVES model. Other necessary data was also prepared.
- (3) The MOVES model was run in inventory mode to determine emission estimates of each precursor for each county for each analysis year.
- (4) LMAPCD staff provided the emission estimates to KIPDA staff.

## RESULTS OF THE ANALYSIS

The transportation plan, *Connecting Kentuckiana 2040*, has been examined to determine if it is in conformity with the SIPs of Indiana and Kentucky and fulfills the criteria in the federal conformity rule (found in 40 CFR 93). The examination has been based on an air quality analysis to determine that air pollutant emissions of the appropriate areas did not exceed the VOC and NO<sub>x</sub> motor vehicle emission budgets.

As previously mentioned, the other criterion for determining conformity would have been the progress in implementation of the Transportation Control Measures (TCMs) contained in the SIPs. However, since previous consultation had determined that there were no approved TCMs, that criterion did not affect the determination of conformity. The results of the regional emissions analyses for ozone precursors are discussed below.

### 8-hour Ozone Analysis

The eight-hour ozone maintenance SIPs of Indiana and Kentucky contain emission budgets for the precursors of ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NO<sub>x</sub>). The regional emissions analysis was conducted to provide estimates of the levels of emissions of VOCs and NO<sub>x</sub> for the various analysis years. These emission levels were then compared to the budgets in the SIPs to determine if the conformity tests were passed.

The results of the regional emissions analysis are summarized in Tables 1 and 2. Table 1 shows the summer weekday vehicle-miles-traveled from the analysis. Table 2 shows that for 2025, 2030, 2035 and 2040, the summer weekday VOC and NO<sub>x</sub> emission levels for the 2015 8-hour nonattainment area are less than the emission budgets established in the 1997 8-hour ozone maintenance SIP.

### Conclusions – 8-hour Ozone

The regional emissions analysis of *Connecting Kentuckiana 2040* indicates that the Metropolitan Transportation Plan is consistent with the goals and emission budgets established in the State Implementation Plans of Indiana and Kentucky. The cumulative effect of the results shown in Table 2 indicates that *Connecting Kentuckiana 2040* has met the requirements of conformity under the 1997 and 2015 8-hour ozone standards. In summary, it can be concluded that *Connecting Kentuckiana 2040* conforms to the SIPs and meets the requirements of the federal conformity rule.

**TABLE 1**

<b>SUMMER WEEKDAY VEHICLE-MILES-TRAVELED (VMT) ESTIMATED FOR THE 8-HOUR OZONE NONATTAINMENT AREA (in 1000's of vmt/day)</b>			
<b>YEAR</b>	<b>INDIANA</b>	<b>KENTUCKY</b>	<b>TOTAL</b>
<b>2025</b>	<b>7894</b>	<b>27298</b>	<b>35192</b>
<b>2030</b>	<b>8426</b>	<b>28717</b>	<b>37143</b>
<b>2035</b>	<b>8959</b>	<b>30052</b>	<b>39011</b>
<b>2040</b>	<b>9446</b>	<b>31184</b>	<b>40630</b>

**TABLE 2**

SUMMER WEEKDAY EMISSIONS FOR THE 8-HOUR NONATTAINMENT AREA (kg/day)				
EMISSION LEVELS FOR VARIOUS YEARS				
YEAR	Area	VOCs	NOx	PASS
2025	Regional	6968	18523	YES
2030		4942	14492	YES
2035		4343	13556	YES
2040		4174	13825	YES

NOTE: The criteria for conformity are as follows:

2025, 2030, 2035, and 2040 Regional emission levels for VOCs must be below the maintenance plan emission budget of 22.92 tons/day or 20,793 kg/day.

2025, 2030, 2035, and 2040 Regional emission levels for NOx must be below the maintenance plan emission budget of 29.46 tons/day or 26,726 kg/day.



***Connecting Kentuckiana 2040* Metropolitan Transportation Plan Amendment 3  
FY 2020-2025 Transportation Improvement Program Amendment 3  
Interagency Consultation Group Conference Call Meeting Minutes  
March 4, 2021  
1:00 PM EDT**

**Participants:**

EPA – Sarah LaRocca, Dianna Myers, Anthony Maietta, & Richard Wong

FHWA – Bernadette Dupont & Erica Tait

LMAPCD – Michelle King & Byron Gary

KYDAQ – Anna Bowman & Ashlee Smither

KYTC – Tonya Higdon & Jahan Khan

IDEM – Shawn Seals

TARC – Aida Copic

KIPDA – Amanda Spencer, Andy Rush, Randy Simon, David Burton, Nick Vail, & Dane Hoskins

**Welcome/Roll Call:**

A total of 20 participants, representing eight local, state, regional, and federal agencies participated in the IAC Conference Call for Amendment 3 of KIPDA's *Connecting Kentuckiana 2040* Metropolitan Transportation Plan and the FY 2020-2025 Transportation Improvement Program. The meeting began shortly after 1:00 PM EDT on March 4, 2021.

**Project Discussion:**

KIPDA Staff presented the list of ten (10) projects that are included in Amendment 3. A change to KIPDA ID 2899 was noted. After discussion earlier in the week with INDOT, the project sponsor, the project

description was changed. Erica Tait, FHWA-IN, pointed out that the change meant that there would now be an impact to the travel model representation of this projects. Bernadette Dupont, FHWA-KY, indicates the change in description indicated a change in the scope of the project. The project (with the new description) will now be added to the 2030, 2035, and 2040 scenarios for the upcoming regional emissions analysis. KIPDA Staff asked if there were any questions about the other nine projects on the list. There were no questions.

#### **Conformity Analysis Discussion:**

KIPDA Staff discussed the key components of the conformity analysis that is expected to be presented to the KIPDA TPC in May. Since it is now 2021, KIPDA will no longer be using 2020 as an analysis year. Therefore, only the 2025, 2030, 2035, and 2040 scenarios will be used as analysis years in the upcoming analysis. The regional emissions estimates for all scenarios will be compared to Year 2020 Budgets established for ozone precursors.

KIPDA staff reminded the IAC of two other elements concerning the regional emissions analysis. The horizon year of the MTP is 2040. Further, there are no TCMs in a SIP for the local area.

#### **Schedule Discussion:**

KIPDA staff discussed key dates of the anticipated schedule for the amendment, which had been included the notice of the Zoom meeting. The regional emissions analysis (including the travel demand and MOVES modeling will be completed by April 9. The public review period for amendment 3 is the latter half of April with a virtual public meeting on April 27. The KIPDA committees are scheduled to review and take action on the amendment in May. The Federal final review and conformity determination is expected by the end of June.

#### **SIP Status Discussion:**

KIPDA Staff sought input on the status of an updated Ozone State Implementation Plan (SIP) for the 2015 Ozone Standard. Michelle King, LMAPCD, noted that LMAPCD is working with KYDAQ on SIP issues at this time, but the work would probably continue through summer.

**MOVES 3 Status Discussion:**

In the course of other discussions, it was noted that there is a new version of MOVES (MOVES 3), which has been released. The question arose as to whether MOVES 3 would be required for Amendment 3. Tony Maietta, EPA indicated that MOVES 3 would not be required until January of 2023. Byron Gary, LMAPCD, indicated that Craig Butler of the LMAPCD staff had been working to change the version of MOVES which would be used in the future, but will not be used at this time for this analysis.

Note: After the IAC Meeting on March 4<sup>th</sup> and the distribution of draft Meeting Minutes on March 11<sup>th</sup>, LMAPCD Staff contacted KIPDA Staff to state that LMAPCD is prepared to use MOVES 3.0 for Amendment 3 and will proceed with its use for the regional emissions analysis.

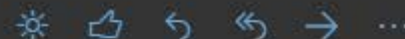
**Other Discussion:**

KIPDA staff offered the opportunity for any other business or questions to be brought before the IAC. There was no other business discussed. The conference call adjourned at approximately 1:30 PM EDT.



Greg Burress

Tue 5/4/2021 2:49 PM



To: Jerry Summers &lt;jsummers@bullittky.com&gt;; Felicia Harper &lt;fharper@bullittky.com&gt;; Keith Griffiee &lt;kgriffiee@bullittky.com&gt; +61 others

Cc: Amanda Spencer; Nick Vail; David Burton; Andy Rush

TPC Members,

The public comment period for proposed Amendment 3 to the Connecting Kentuckiana 2040 Metropolitan Transportation Plan (MTP) and FY 2020-2025 Transportation Improvement Program (TIP) began on April 16th and ended on April 30th. The public comment period followed a regional emissions analysis that supports a favorable AQ conformity determination.

The public input opportunity was advertised in four newspapers. A [website](#) was created to house all pertinent information along with an Interactive Project Map identifying all Amendment 3 projects. A virtual public meeting was held on April 27th with one member of the public in attendance. Social media and email announcements were utilized throughout the window to increase awareness and engagement. KIPDA did not receive any comments on proposed Amendment 3 to the MTP and TIP.

TTCC will be asked on May 12, 2021 to make a recommendation for TPC consideration regarding proposed Amendment 3, and TPC action will be requested at the May 27, 2021 TPC meeting.

Please contact me anytime with questions or concerns.

Greg Burress

Community Outreach Specialist

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*Area Agency on Aging and Independent Living  
Area Development District  
Metropolitan Planning Organization*

**Agenda Item #9**

**MEMORANDUM**

**TO:** Transportation Technical Coordinating Committee  
**FROM:** Elizabeth Farc  
**DATE:** May 4, 2021  
**SUBJECT:** Active Transportation Plan Update

The TTCC Active Transportation Plan Working Group will hold its second meeting on Wednesday, May 5. The working group is carrying forward the earlier Complete Street Policy effort that was postponed in 2020 and has expanded its scope to include the development of the Active Transportation Plan.

The purpose of this meeting of the working group is to review and provide input on 1) the results of the public survey, 2) the draft ATP vision and goals, and 3) the draft list of data indicators for a propensity to walk or bike analysis.

KIPDA staff and the chair of the TTCC Active Transportation/Complete Streets Working Group will update the TTCC on discussion from the May 5<sup>th</sup> working group meeting.

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