PARTICIPANT **HANDBOOK**



Environment









CMAQ 🕊





Climate Change 🔏





Hosted by: KYTC and FHWA-KY





KYTC Conference Ctr, 1st Floor Auditorium 200 Mero Street, Frankfort, KY

PRE-CONFERENCE	ACTIVITIES - Wed	dnesday, April 13
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Lextran's Transit Ctr & CNG Fueling Station Tour B: Tour A:

Buffalo Trace Distillery 2:30 PM Board Trolleys @ KYTC

1:30 PM Board Vans @ KYTC

2:30 PM Tour Begins

3:00 PM Tour begins

See you tomorrow!

AGENDA Thursday, April 14, 2016										
8:00 AM	Registration	10	_							
8:30 AM	Welcome Address	Greg Thomas KYTC Thomas Nelson, Jr. FHWA-KY								
LIVABILITY										
9:00 AM	FAST Act Ladders of Opportunity Block Grant/STP set-aside TAP Performance Measure Guidebook, Transportation and Health Tool	Shana Baker FHWA-HQ								
9:30 AM	KY's Interesting STP Block/TAP Projects	Greg Rawlings/Kim Tompkins FHWA-KY / KYTC-OLP								
9:45 AM	KY's Interesting Bike/Ped Projects	Troy Hearn KYTC-Planning								
10:00 AM	Newtown Pike Extension Video David Whitworth FHWA-KY									
10:15 AM	Break		_							
	AIR QUALITY									
10:30 AM	NAAQs / Advance Program	Dianna Myers / Kelly Sheckler EPA-R4	E							
11:00 AM	Latest Updates from the Division for Air Quality	Sean Alteri KYDAQ	H							
11:15 PM	Advanced Transportation Technologies Fleets and Alternative Fuels	Melissa Howell KY Clean Fuels Coalition								
	What's Happening at APCD?	Michelle King	I T							
11:30 PM	Monitors & Requirements, KAIRE	APCD	S							
11:45 PM	KYTC's Use of Drones	Dan Farrell / Glenn Anderson KYTC-Highway Design & Traffic Ops	o							
12:00 PM	Lunch - On Your Own - Cafeteria on Premise - Local Resta	urants within Walking Distance	P							
	CMAQ		E							
1:00 PM	New CMAQ Guidance	Mark Glaze FHWA-HQ	N							
1:30 PM	KY's Interesting CMAQ Projects	Jackie Jones KYTC-OLP								
1:45 PM	Lextran's CMAQ Project	Carrie Butler Lextran								
2:00 PM	Break		-							
	CLIMATE CHANGE									
2:15 PM	Climate Variability & Change: Temporal Perspective	Stuart Foster State Climatologist								
2:45 PM	KYTC's Natural Hazard/Vulnerability Assessment	Scott Schurman / Ben Blandford KYTC-DEA / KTC								
3:00 PM	Using Real-time Data to Prepare for Climate Change	Chris Lambert KYTC-Maintenance								
	ENVIRONMENT									
3:15 PM	New Policies for Environment Environmental Justice, Noise	David Waldner KYTC-DEA								
3:40 PM	ORB - Environmental Commitments	Jeremiah Littleton KYTC-Construction								
4:00 PM	Thank you for participating! Safe travels.									



Greg Thomas joins the cabinet after spending nearly 33 years in the electric and natural gas industry. Thomas began his career in the industry as a technical engineer for Kentucky Utilities (KU). Over the years, he has held many diverse positions in the electric distribution sector including customer service engineer, field operations coordinator, division engineer, district manager, division vice president, regional general manager, and director of Distribution Operations and Energy Delivery.

At Louisville Gas and Electric (LG&E), Thomas was responsible for the safe, reliable and strategic operation of the statewide electric distribution system and related regulatory and compliance functions. His responsibilities included overseeing the installation of service for new customers; enhancing, maintaining and operating the electric network; system restoration and mutual assistance efforts; substation construction and maintenance; and vehicle fleet operation and the federal Department of Transportation compliance.

Thomas has a bachelor's degree in mechanical engineering from the University of Tennessee. He is a member of the Edison Electric Institute Operations Group. Thomas serves on the American Gas Association Executive Council, the Southern Gas Association Executive Committee and the board of the American Red Cross.

Thomas is a graduate of Leadership Kentucky and is a volunteer for Project Warm, the WHAS Crusade for Children and Metro United Way. He lives in Louisville with his wife, LuAnn, and their two sons, Will and Gus.



Greg Thomas

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Thomas Nelson, Jr.

Division Administrator - KY USDOT-Federal Highway Administration 330 West Broadway Frankfort, KY 40601-1981 (502) 223-6720 thomas.nelson@dot.gov **Thomas Nelson, Jr.** has served as the Federal Highway Administration (FHWA) Kentucky Division Administrator since May 2015. In this position, he leads a staff that works closely with the Kentucky Transportation Cabinet, and other partners, in implementing the Federal-aid Highway Program.

Prior to this position, Thomas served as the Special Assistant to the FHWA Administrator. In this capacity he provided direct support to the Administrator and served as a key advisor on program and policy issues having national, regulatory, and legislative implications.

Thomas also served as a Major Projects Engineer in the Office of Innovative Program Delivery where he was responsible for providing technical and policy assistance to FHWA field offices, partners and stakeholders in implementing risk-based project management.

Before joining FHWA in 2009, Thomas served for 8 years as a Vice President and Area Manager for an international engineering firm in Michigan. Thomas also gained 10 years of valuable leadership experience with the Michigan Department of Transportation where he served as the Unit Leader for Highway Design.

He holds a Bachelor's Degree in Civil Engineering from Michigan State University and is a licensed professional Engineer.





Shana Baker



Shana V. Baker is the Livability Team Lead in the Federal Highway Administration's (FHWA) Office of Human Environment. Her team oversees a number of topics such as livability, multimodal transportation activities, environmental justice, and Context Sensitive Solutions.

Shana received a Masters of Arts degree in Urban Planning from the University of Akron and a Bachelor of Arts degree in Political Science from Bethune-Cookman College. Shana also received a Logistics Professional Certificate from Georgia Institute of Technology.

Shana Baker

Livability Team Lead Office of Human Environment **USDOT-Federal Highway** Administration HEPN-10, E74-466 1200 New Jersey Ave, SE Washington, D. C. 20590 (202) 366-4649 shanabaker@dot.gov



Greg Rawlings



Greg Rawlings is a Transportation Specialist for the Kentucky Division of the Federal Highway Administration (FHWA) on the Program Delivery Team. In 18 years with FHWA his responsibilities have included statewide planning, metropolitan planning, NEPA environmental review and project approval. He is also the Local Public Agency contact and Bicycle/Pedestrian coordinator for the Division.

Greg has an Inter-Cultural Studies degree from Transylvania University and a Master's Degree in Geography from the University of Kentucky. Prior to his mid-career hire at FHWA Greg had work experience at the Kentucky and New Mexico state highway agencies.

Greg Rawlings

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Kim Tompkins



Kim Tompkins is currently KY's State Transportation Alternatives Program Coordinator making sure projects comply with both Federal and State laws and guidelines. Projects are awarded among 10 categories of eligible activities including Bike/Ped projects, Safe Routes for Non-Drivers, Conversion of Abandoned Railways to Trails and Storm water Management. Kim has spent her State Government career in Program Management in one form or other. Kim came to the Office of Local Programs from the Department for Local Government working with city & county governments throughout the state. She has also worked with programs in Economic Development, the Governor's Office for Agricultural Policy and the Finance Cabinet.

Kim Tompkins

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Troy Hearn



Troy Hearn has been a very active pedestrian and bicyclist for the past 35 years. He has worked in the Bicycle Industry for over 25 years. He currently serves as the Bicycle and Pedestrian program coordinator for the KY Transportation Cabinet, and has done so for the past four years. He is currently a board member with several state wide and regional bike/walk organizations.

Troy graduated from the University of Kentucky with a major in Business/Marketing and also holds a Minor in History. He is married with 3 kids and one grandchild.

Troy Hearn

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David Whitworth



David Whitworth is a career employee of the Federal Highway Administration. He currently leads the Project Delivery Team and also serves as the Realty Officer for the Division. He has held a number of other positions in the agency including Area Engineer, Safety Engineer, Planning and Environment Specialist, and Technical Services Team Leader. He joined the agency by entering the 27 month Federal Highway Training Program in 1988. David has been consistently working with the Newtown Pike Extension project for the last 16 years and is one of the longest serving members of the Project team. He also served as a Combat Engineer Officer in the Army National Guard and the Army Reserves.

David holds a Bachelor of Science in Civil Engineering from Tennessee Tech University and a Master's Degree in Public Administration from the University of Kentucky (GO CATS!).

David Whitworth

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Dianna Myers



Dianna B. Myers serves as the Regional Transportation Conformity Expert in the Air Regulatory Management Section for the United States Environmental Protection Agency- Region 4, located in Atlanta, Georgia. She coordinates all transportation conformity and state implementation planning issues relating to motor vehicle budgets and provides technical assistance to nonattainment/maintenance areas throughout Region 4.

Dianna has worked at the U.S. Environmental Protection Agency for 28 years. During her tenure, she worked in the Office of Regional Counsel and in the Northern Air Enforcement and Compliance Section.

She has an Industrial Engineering Technology degree from Southern Polytechnic State University. She is married with children.

Dianna Myers

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Sean Alteri



Sean Alteri is the Director of the Division for Air Quality. The Division is comprised of 166 full-time employees divided into 4 technical branches and 20 specialized sections and is responsible for carrying out the Clean Air Act requirements on behalf of the Commonwealth. During his 18-year career with the Division, Mr. Alteri worked as a permit engineering assistant, Regulation Development Supervisor, Technical Services Branch Manager, and the Assistant Director. Currently, Sean is also serving as the Vice-President of the Association of Air Pollution Control Agencies (AAPCA) and is the Chair for the Southeastern States Air Resources Managers (SESARM).

Sean is a graduate of the University of Kentucky College of Engineering (BS Chemical, 1997) and resides on a family farm in Anderson County.

Sean Alteri Director

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Melissa Howell



Melissa Howell is the Executive Director for the KY Clean Fuels Coalition and specializes in project development in the alternative fuels and advanced transportation technologies industry. She has 22 years of organizational management experience leading a non-profit organization, the Kentucky Clean Fuels Coalition. Melissa has identified and secured funding in excess of \$30 million for coalition members, continually tracking national opportunities for public/private/governmental partnerships.

Projects she is most proud of: Mammoth Cave National Park - where 100% of their vehicles and equipment are alternatively fueled, Kentucky operates the largest fleet in the nation of Hybrid Electric School Buses, Technician Training for the 21st Century at Kentucky Community Colleges, multi technology adoption of UPS in Louisville, and the Green Fleets of the Bluegrass Program.

Melissa graduated from the Leadership Louisville Bingham Fellows program in 2011, served on the Founding Board of Directors of the Louisville Sustainability Council and co chaired the Transportation Action Team of the LSC. Melissa and her husband have three children.

Melissa Howell

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Michelle King



Michelle King is the Executive Administrator at the Louisville Metro Air Pollution Control District. Since joining the District in 2005, she and her colleagues have focused on program and policy development related to air quality impacts from a variety of emission sources and pollution generating activities in Louisville, particularly those not subject to the federal and local regulations at the core of the District's work. In this capacity, Michelle has had the opportunity to work on wide-ranging projects with private and public sector partners.

Michelle currently serves on the Steering Committee of the Partnership for a Green City (PGC), a collaborative sustainability effort by four of Louisville's largest public entities: Louisville Metro Government, University of Louisville, Jefferson County Public Schools, and Jefferson Community & Technical College.

Michelle earned a Bachelor of Science in Environmental Science from Morehead State University, a Master of Public Affairs in Environmental Policy from the Indiana University School of Public and Environmental Affairs, and a Doctorate of Jurisprudence from the Indiana University Maurer School of Law.

Michelle King

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Dan Farrell

Dan Farrell is a licensed land surveyor in the Commonwealth of Kentucky and is the Statewide Survey Coordinator for the Kentucky Transportation Cabinet. He manages the Statewide Survey Contracts and Statewide Aerial Photogrammetry contracts for the Cabinet. He provides guidance, training, and support for Transportation's survey staff in Highway Design and Construction. He is a member of the Bluegrass Mustang Club and holds a Private Pilot Certificate.

Dan has worked for the Kentucky Transportation Cabinet for over 37 years and is a graduate of Cincinnati State College in Cincinnati, Ohio.

Dan Farrell

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Glenn Anderson



Glenn Anderson is an Electrical Engineer with 30 years of experience in the fields of Traffic and ITS. Glenn has spent the majority of his career in the Transportation Cabinet's Division of Traffic Operations. Glenn also worked for TEC Engineering and the Division of Maintenance. Glenn developed the Cabinet's Road Weather Information System, the Cabinet's traffic signal monitoring software, and the Bluetooth based travel time monitoring system.

Glenn started flying radio controlled airplanes in 1976 and started New Perspective Aerial Photography in 1994. New Perspective utilized unmanned aircraft to take photos for real estate and other markets until 2008 when the FAA began regulating the commercial use of unmanned aircraft. Glenn wrote the Cabinet's FAA "333 Exemption" and built two quadrotors and two fixed wing aircraft. Glenn is currently working with Dan Farrell to evaluate Unmanned Aircraft Systems for surveying and other purposes within the Transportation Cabinet.



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Mark Glaze



Mark Glaze has been employed with the Federal Highway Administration since June of 2010 and his responsibilities include: facilitating use of MOVES and other air quality models for Transportation Conformity and Climate Change applications; development and support for the CMAQ Project Tracking and Public Access Systems, project eligibility and policy determinations, as well as development of research projects concerning both Air Quality and Climate Change. Previous experience included over ten years with USEPA and USDA working on applications of cost/benefit and related financial analyses.

Mark holds both a BS degree in Biology and a MS degree in Economics, from the University of Delaware.

Mark Glaze

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Jackie Jones

Jackie Jones is an Executive Staff Advisor with the Kentucky Transportation Cabinet, Office of Local Programs. The Office of Local Programs manages federal-aid highway programs including the former Transportation Enhancement (TE), Safe Routes to School (SRTS), National Scenic Byways, and Transportation Community and Systems Preservations (TCSP) programs, the Congestion Mitigation and Air Quality (CMAQ) program and the Transportation Alternatives (TA) program.

Jackie holds a B.A. in Public Administration and has been with the Transportation Cabinet since December 2004.

Jackie Jones

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Carrie Butler

ALextran

Carrie Butler is the General Manager of Lextran, the transit authority in Lexington, Kentucky where she oversees all aspects of the organization, which provides nearly five million passenger trips annually with a fleet of 65 vehicles. Previously, at the Transit Authority of River City, she managed the Department of Planning and Scheduling. At TranSystems, her project focus was on Intelligent Transportation Systems (ITS) planning along with a range of transit and urban design plans for transit agencies, local, state and federal projects.

Carrie has a Master's degree in Urban and Regional Planning from Florida State University and a Bachelor's degree in Economics from Bellarmine University.

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Stuart Foster



Dr. Stuart A. Foster is a professor of geography at Western Kentucky University. He has served as State Climatologist since 2000 and is director of the Kentucky Climate Center, which serves as the State Climate Office for Kentucky, and the Kentucky Mesonet.

Current interests focus on aspects of Kentucky's climate, issues in climate monitoring, and the analysis and visualization of climatological data in the delivery of climate services.

Dr. Foster received his B.A. in Geography from West Virginia University in 1981. He completed his graduate education at Ohio State University, including his M.A. in Geography in 1983 and his Ph.D. in Geography in 1988.

Stuart A. Foster, PhD

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Scott Schurman



Scott Schurman is an Environmental Scientist for the Kentucky Transportation Cabinet (KYTC) with nearly 30 years of environmental and transportation management experience. He has been involved in numerous successful environmental and transportation management projects both in the governmental and private sectors.

For the past 10 years, Scott has served as and Environmental Project Manager for KYTC Highway Districts 3, 4, and 6. He also currently serves as KYTC's Climate Change and Resiliency Coordinator and is a member of AASHTO's Resilient and Sustainable Transportation Systems Steering Committee.

Scott earned a B.S. Degree in Environmental Science from Georgetown College. He currently lives in Georgetown with his wife Chris and two children.

Scott Schurman

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Ben Blandford



Ben Blandford has worked at the University of Kentucky Transportation Center (KTC) since 2006, first as a graduate research assistant and currently as a senior research scientist. Ben is also an adjunct professor in the Department of Social Sciences at Midway University. Ben's research at KTC centers on transportation and environmental planning, with projects ranging from public transportation policy to integrated land use and transportation planning to risk-based assessment of transportation assets. Ben also specializes in GIS and geovisualization and has incorporated these tools into projects focusing on intermodal freight network modeling and predictive habitat modeling for threatened and endangered species.

Ben received a Ph.D. in Geography from the University of Kentucky in 2015.



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Chris Lambert



Chris Lambert has been with the Kentucky Transportation Cabinet for eighteen years. Primarily serving in some technology capacity, Chris' career with the cabinet has included Information Technology, Construction, Highway Design, Permits, and Intelligent Transportation Systems.

His current projects include: Managing the public-privatepartnership between KYTC and Waze, designing and implementing a new Snow and Ice management system, and designing a new ITS platform capable of reading, processing, interpreting, and responding to over 1 million real-time records per second as well as performing "big data" analytics.

Chris enjoys poverty relief work in rural Honduras as well as investing and helping people start small businesses.

Chris Lambert

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David Waldner



David Waldner is the Director of the Division of Environmental Analysis for the Kentucky Transportation Cabinet's Department of Highways, and has served in this capacity since joining the Department in 2001.

His Division is responsible for addressing environmental requirements for developing highway and aviation projects as well as managing environmental compliance of the Cabinet's more than 150 highway support facilities statewide.

David is a graduate of the University of Kentucky where he received his Bachelors of Science in Civil Engineering in 1983 and is a licensed Professional Engineer. He has a combined 33 years of experience in both the public and private sectors, addressing complex environmental issues.

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Jeremiah Littleton



Jeremiah Littleton has worked as an engineer for the Kentucky Transportation Cabinet for the past 14 years. He has been a Section Engineer on the Design Build Team for the Louisville Southern Indiana Ohio River Bridges, recently renamed the Abraham Lincoln Memorial Bridge. He was recently named "Engineer of the Year" by the KY Association of Transportation Engineers (March 2016).

Jeremiah is a graduate of the University of Kentucky where he received his Bachelors of Science in Civil Engineering.

He is a Carter County native, but currently resides in Frankfort with his wife Cindy. They have been married for over 17 years.

Jeremiah Littleton

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A special thank you to our exhibitors!















- Adures

LIVABILITY



HUD/DOT/EPA LIVABILITY PRINCIPLES



Provide more transportation choices. Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

Promote equitable, affordable housing. Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.

Enhance economic competitiveness. Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.

Support existing communities. Target federal funding toward existing communities—through strategies like transit oriented, mixed-use development, and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.

Coordinate and leverage federal policies and investment. Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy

Value communities and neighborhoods. Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

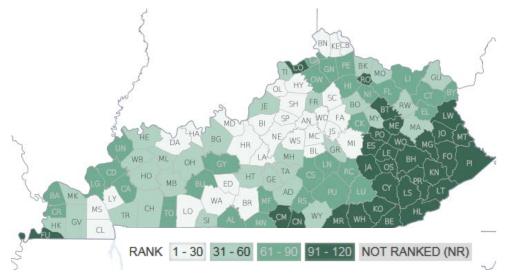


LIVABILITY

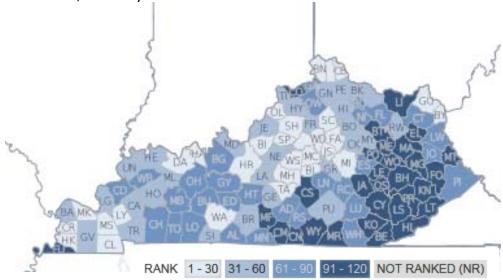
COUNTY HEALTH RANKINGS, 2015

The County Health Rankings & Roadmaps was created to increase awareness and help communities find ways to improve health. To determine where each county ranks, a variety of measures were reviewed and analyzed.

The Health OUTCOMES Map below considered "Length of Life" and "Quality of Life".



The Health FACTORS Map below considered "Health Behaviors", "Clinical Care", Social & Economic Factors", and "Physical Environment".

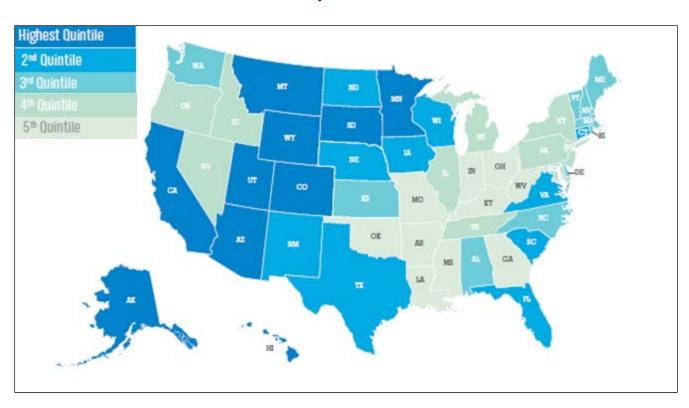


www.countyhealthrankings.org



LIVABILITY

WELL-BEING RANKING, 2015



State	Well-Being Scores, 2015					
	Purpose	Social	Financial	Community	Physical	Overall
Tennessee	26	38	40	15	42	61.5
Indiana	39	40	33	44	46	60.5
Ohio	45	45	27	46	45	60.5
Kentucky	44	44	41	30	49	60.3
West Virginia	50	50	47	50	50	58.5

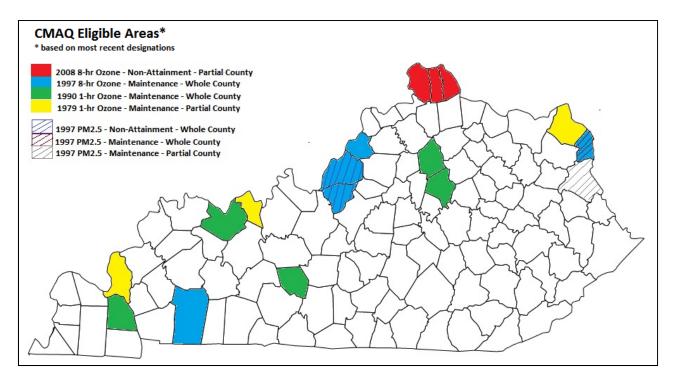
www.well-beingindex.com



CMAQ

CONGESTION MITIGATION & AIR QUALITY

The purpose of the CMAQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the National Ambient Air Quality Standards (NAAQS) for Ozone (O_3) , Carbon Monoxide (CO), and Particulate Matter (both PM_{10} and $PM_{2.5}$).



Kentucky counties eligible for CMAQ funds are:

- Boone
- Boyd
- Bullitt
- Campbell
- Christian
- Daviess
- Edmonson
- Fayette
- Greenup (p)

- Hancock (p)
- Jefferson
- Kenton
- Lawrence (p)
- Livingston (p)
- Marshall
- Oldham
- Scott

(p) - Partial County



CMAQ

BIOFUELS, 2014 US Energy Information Administration (EIA)

What is a biofuel? Biofuels are fuels produced from renewable materials of plant or animal origins.

- Bioethanol is usually used as a substitute for gasoline.
- Biodiesel is usually used as a substitute for diesel.

What is bioethanol? Bioethanol is an alcohol made from sugar and starches that have fermented and distilled. It is usually blended with gasoline.

What is biodiesel? Biodiesel is produced from vegetable oil or animal fat that has been chemically converted to esters. It is usually blended with mineral diesel.

Why use biofuels? Biofuels reduce carbon dioxide emissions, are non-toxic, and biodegradable.

What countries produce the most biodiesel fuels?

1) United States, 2) Brazil, 3) Germany, 4) Indonesia 5) Argentina.

NATURAL GAS International Energy Agency

What is natural gas? Natural Gas is mostly methane and is drawn down from gas wells or in conjunction with crude oil production. It is lighter than air.

What is the difference between CNG, LNG, and LPG?

- Compressed Natural Gas (CNG) is natural gas stored in high-pressure tanks.
- Liquefied Natural Gas (LNG) is natural gas stored as a super-cooled (cryogenic) liquid. The density is comparable to petrol and diesel fuels.
- Liquefied Petroleum Gas (LPF) is also known as Autogas, and consists of propane, propylene, butane, and butylene. It is a by-product of natural gas processing and petroleum refining.

What countries produce the most natural gas?

1) United States (19.8%), 2) Russia (19.3%), 3) Qatar (4.6%), 4) Iran (4.6%), 5) Canada (4.5%)



REFERENCES

AIR QUALITY

Air Now http://airnow.gov/

EPA Green Book Nonattainment Areas for Criteria Pollutants www3.epa.gov/airquality/greenbook/

FHWA It All Adds Up to Cleaner Air www.fhwa.dot.gov/environment/air quality/it all adds up/

FHWA Conformity Training www.fhwa.dot.gov/environment/air_quality/conformity/training/.

BIKE/PED

FHWA Bicycle and Pedestrian Website: www.fhwa.dot.gov/environment/bicycle_pedestrian/index.cfm

FHWA Statewide Pedestrian and Bicycle Planning Handbook (09/2014) NEW!

www.fhwa.dot.gov/planning/processes/pedestrian bicycle/pedestrian bicycle handbook/fhwahep14051.pdf

CONGESTION MITIGATION AND AIR QUALITY (CMAQ)

FHWA CMAQ wwW.fhwa.dot.gov/environment/air quality/cmaq/

FHWA YouTube video on the CMAQ program

<u>www.youtube.com/watch?v=XKXcs0WtNHA&feature=youtu.be</u>.

CLIMATE CHANGE

FHWA Climate Change and Transportation www.fhwa.dot.gov/environment/climate change/

EPA Climate Change www.epa.gov/climatechange

EPA YouTube Videos on Climate Change www.youtube.com/playlist?list=PLBhfkkujnoRB2-
MJKSMN9SL0iZOiXz8Am

ENVIRONMENT

FHWA Environmental Review Toolkit www.environment.fhwa.dot.gov/projdev/pd2implement.asp

ENVIRONMENTAL JUSTICE

FHWA's Environmental Justice Website:

www.fhwa.dot.gov/environment/environmental justice/



www.fhwa.dot.gov/environment/environmental justice/resources/reference guide 2015/fhwahep15035..pdf

EJ in NEPA Case Studies (2013):

www.fhwa.dot.gov/environment/environmental justice/ej and nepa/case studies/

Environmental Justice Emerging Trends and Best Practices Guidebook (2011):

www.fhwa.dot.gov/environment/environmental justice/resources/guidebook/eiguidebook110111.pdf





REFERENCES

LIVABILITY



FHWA Livability Website: www.fhwa.dot.gov/livability/

From here there is access to the *PlaceFit Tool, Community Vision Metrics Tool,* and a place to sign up for the Human Environment Digest or the Fostering Livable Communities Newsletter, and Tools for Sustainable Communities.

FHWA and CDC Transportation and Health Tool (10/2015) *NEW!* www.transportation.gov/transportation-health-tool

EPA's Guide to Sustainable Transportation Performance Measures www.epa.gov/sites/production/files/2014-01/documents/sustainable_transpo_performance.pdf

PLANNING (Transportation)

FHWA Planning Website: www.fhwa.dot.gov/planning/



The Transportation Planning Process Briefing Book (2015): *NEW!* www.fhwa.dot.gov/planning/publications/briefing book/

Transportation Planning Resource Guide (2008)

www.fhwa.dot.gov/planning/public involvement/publications/resource guide/page01.cfm

PUBLIC INVOLVEMENT



www.fhwa.dot.gov/planning/public_involvement/index.cfm



Public Involvement Techniques for Transportation Decision making (2015 Update) *NEW!* www.fhwa.dot.gov/planning/public_involvement/publications/pi_techniques/fhwahep15044.pdf

A Guide to Transportation Decision making: (2015 update) NEW!

www.planning.dot.gov/documents/GuidetoTransportationDecisionmaking.pdf

FHWA Public Involvement Reference Tool (2013)

www.fhwa.dot.gov/planning/public involvement/reference tool/

STBP GRANT (TAP, Recreational Trails)

FHWA STBG/TAP Performance Measure Guidebook

www.fhwa.dot.gov/environment/transportation alternatives/performance management/

FHWA Recreational Trails

www.fhwa.dot.gov/environment/recreational_trails/