



Bryan Hubbell, National Program Director, Air and Energy Research Program, EPA ORD
Hubbell.bryan@epa.gov

June 1, 2020

Dear Mr. Hubbell:

The Western States Air Resources Council (WESTAR) is an organization of fifteen western state air agencies extending from Alaska to New Mexico and from Hawaii to North Dakota. WESTAR promotes the exchange of air quality information and technical data between western states and provides a forum for interstate air quality issues in the west. WESTAR is primarily supported by grants from EPA and the U.S. Department of Interior. We noted the recent Information Collection Request (ICR) from EPA's Office of Research and Development (ORD) to survey stakeholders currently using ORD scientific research products to ascertain quality, usability and timeliness of research products. WESTAR looks forward to our members' participation in the survey process described in the ICR. We applaud and encourage ORD to use the survey approach on a frequent and continuing basis to ensure stakeholder input into ORD research initiatives. In addition to ORD then sharing complete and transparent survey results when implemented, it would also be helpful to know for the current ICR, whom (states, tribes, local air agencies, multi-jurisdictional organizations like WESTAR), that ORD plans to survey, as well as when and at what organizational level. As the Environmental Council of States (ECOS) notes in *Cooperative Federalism 2.0* (June 2017), "*The federal government has well-developed capacity to keep abreast of emerging challenges and to research potentially successful technologies or remedies for current challenges that no single state has the capacity to replicate or replace.*" WESTAR would like to note several areas of western interest where ORD air quality research and tools would be beneficial as states strive to improve air quality.

The west continues to work toward improvement of western emissions inventories to improve air modeling for state decision-making, but there are still several significant sectors/areas of emissions inventory where improvements are critical and tools are lacking. Oil and gas emissions inventories in the western U.S. have been refined over the past two decades, but as is well documented, there are still significant differences in top-down and bottom-up inventories. The swings in production, the shift from conventional to shale production, geographic variation in exploration and production operations, and air pollutant impacts of this sector are examples of the needs that should drive a sustained and substantive research agenda by ORD that aligns with well-specified objectives and timely work products needed by states. As fossil-fueled Electric

Generating Units have become better controlled or retire, and with the increased capacity for solar and wind generation throughout the west, oil and gas sector emissions have become a more significant part of anthropogenic emissions inventories. Because these emissions are controllable by states, the importance of accurately representing them has increased.

While wildfire has always been an important component of western air quality inventories, the unprecedented growth of western wildfires in the form of increased frequency, intensity and magnitude of fire activity due to climate change and historic fuel management strategies means these emissions are important to analysis of present and future air quality in the west. As with oil and gas, a sustained and substantive research agenda by ORD that aligns with well-specified objectives and timely work products needed by states is important, tying in partners and leveraging work of federal land management agencies responsible for a majority of the land ownership and fire management in the west. Improving tools for the estimation of biogenic emissions is also a priority for improving western emissions inventories in terms of our ability to assess and model both natural and anthropogenic sources' contributions along with fire, for state air quality management programs and Clean Air Act planning requirements. Assistance with development of improved inventory tools and assistance to the states in understanding these emissions will help states improve their decision-making processes.

WESTAR states continue to need scientific tools to assist in distinguishing background ozone and particulate matter from international sources, natural sources and wildfire for exceptional events, regional haze and NAAQS compliance. Background levels of ozone contribute significantly to elevated ozone concentrations in rural areas of the west, and western states need tools and data regarding long-range transport, stratospheric intrusion and wildfire to reconcile appropriate measures to improve air quality in these areas. Many studies have been completed in the eastern U.S. to develop a better understanding of eastern ozone precursors, ozone formation and the fate of ozone, and a similar commitment to study those same issues must be made to the western U.S. in order to make improvements to western air quality. These needed modeling and analysis studies should be structured and well-documented by ORD with in cooperation with the western states prior to executing the studies, such that results shared from ORD can then be evaluated and aligned by states for the most expeditious and efficacious implementation by western air agencies – a focus on applied science results.

Throughout the U.S., citizen science initiatives and citizen monitoring are on the increase. WESTAR states are rapidly gaining on-the-ground experience with low-cost sensors and interpretation of this data. States are effectively the laboratories for innovation in this area and ORD has an opportunity to work with states to provide tools and methods for incorporating low-cost sensor data into state analyses to characterize air quality more comprehensively.

With the likely forthcoming constraints in state budgets, federal leadership and coordination to

improve and simplify air quality models will increase. States with smaller numbers of air quality staff doing a greater variety of tasks would find lower complexity modeling tools that still incorporate complex terrain considerations and meteorology useful. Current photochemical models are too complex and time-consuming for many state agencies to use without contractor assistance. Simpler screening tools providing conservative results would be helpful.

WESTAR would be appreciative of opportunities for ongoing dialogue to discuss specific needs and work cooperatively with your program to transparently and comprehensively address western air quality issues. Please contact Mary Uhl, WESTAR's Executive Director, (maryuhl@westar.org) if you have questions or would like to further discuss any of these ideas.

Sincerely,

A handwritten signature in blue ink, appearing to read "Garrison Kaufman".

Garrison Kaufman
President