



**ECOS Transportation, Air Quality & Climate Change Committee**  
**Thursday, October 1, 2020, 5:45 p.m.**  
**Videoconference, hosted by Zoom**

**Link to join** the TAQCC Zoom Meeting: <<https://us02web.zoom.us/j/85805612058>>  
To phone in: 669 900 6833, Meeting ID: 858 0561 2058

**Meeting Notes**

**5:45 p.m.** – Social time -- meet and greet

**6:00 p.m.** – Welcome, Introductions, Check-Ins, and Changes to Agenda

*Attendance:* Karen Jacques, Asha Kreiling, Brandon Rose, Gloria Kim, Jeffery Tardaguila, Marko Pavovic, Oscar Balaguer, Sandra Hall, Robert Meagher, Sue Teranishi, Ruth McDonald, May Lin Chang, Alex Reagan (ECOS staff), Ralph Propper (ECOS Pres.), Lynne Goldsmith (co-chair), John Deeter (co-chair).

*Guest:* Earl Withycombe (CA Air Resources Board)

**6:05 p.m.** – Particulate Matter Air Pollution: “Smoke, Dust and Siblings”

- Earl Withycombe, Air Resources Engineer, California Air Resources Board  
Earl is an expert on fugitive dust, and a Board Member for both ECOS and Breathe California Sacramento Region. He will figuratively step into a “hogshead of real fire” and entertain you with minutiae that will illuminate the composition of the air you breathe and how your body responds. His presentation will focus on particulate matter pollution, for reasons that will be made clear in the first few slides.



Ralph Propper, with a Masters in Public Health, will add to the discussion relating to health impacts of particulate matter

*Withycombe:* [Shows PowerPoint slideshow “[Smoke, Dust and Siblings](#)”]. Air pollutants regulated by California include Federal Criteria Pollutants such as the gases carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), and sulfur dioxide (SO<sub>2</sub>), and particulate matter less than 10 μm (PM<sub>10</sub>) and less than 2.5 μm (PM<sub>2.5</sub>). Air pollution is deadly: PM<sub>2.5</sub> kills 19,700 Californians per year, ozone another 13,700, and the monetized health losses from PM<sub>2.5</sub> exposure were \$224 billion in 2012. Coarse PM (>2.5 μm) is screened out in the head airways and trachea, but PM<sub>2.5</sub> can get into the lungs, and fine PM (<0.1 μm) from vehicle exhaust and metal fumes is particularly hazardous since it can get into the bloodstream and then carried into internal organs.

Health risks from PM are generally cumulative, and federal Air Quality Standards set limits to concentrations of both PM<sub>2.5</sub> and PM<sub>10</sub>, averaged over 24 hours and annually. So far this year (264

days), the 24-hour limit for  $PM_{10}$  has been exceeded only four times in Sacramento, but the  $PM_{2.5}$  limit has been exceeded on 18 days (measured at 13th and T streets). Weather plays a major role in PM concentration, determining whether air is trapped in the Sacramento Valley basin or dispersed away from it. Factors include location of the Pacific high pressure system (offshore or inland), presence of an inversion layer, etc.

There are many health risks from particulate matter associated with living near a major roadway or in a heavily polluted area (see slide 20 for a listing.) This year has been particularly bad, with  $PM_{2.5}$  exceeding the federal limit 18 times so far, compared to none in 2019. Wildfires have been a major source of PM this year with over 4 million acres burned compared to just 250 thousand acres last year. "Orange is the new blue." When air is declared unhealthy, people should stay indoors and filter their air, or use a face mask. Current estimates of air pollution can be found online at websites such as Purple Air (see slide 27), or by using a low-cost detector.

**Q:** Don't electric appliances help improve air quality? **A:** Not a lot, pollution from cooking and candles is worse.

**Q:** Why is natural gas polluting? **A:** It is not entirely methane.

**Q:** Do trees and vegetation filter the air? **A:** Vegetation has been studied within the last 20 years. Even with a solid bank of trees, only about 30% of pollution is captured and the rest filters through.

**Q:** What can we do to protect ourselves? **A:** Avoid candles and incense; Install HEPA filter in HVAC systems to filter out fine particles and replace after the end of each significant burn season or event, seal schools, and add new filters; Recommended air purifiers include: [Blue Pure 411](#) (HEPA & carbon filter); [3M2200 Series Filtrete Filter](#), 4-pack from Costco; AERUS LUX Guardian Angel (Guardian Technologies Air Filters) for small rooms. See handheld device in slide show to measure indoor air quality.

**Rose:** Refers to a presentation on pollution from commercial vehicles.

[https://ww3.arb.ca.gov/msprog/truckstop/pdfs/vos\\_adv\\_tech\\_slides.pdf](https://ww3.arb.ca.gov/msprog/truckstop/pdfs/vos_adv_tech_slides.pdf)

**Q:** Where should we be focusing our advocacy? **Discussion:** (a) Zoning should not allow housing close to major roads where the "profit is privatized but the burden is socialized." (b) Avoid consumer products that contain chemicals. (c) Replace the use of automobiles by increasing transit, bicycling and walking. (d) Encourage strong Climate Action Planning and implementation. (e) Valley Vision and Breathe Sac received a grant for outreach to North and South Sacramento. (f) 350 Sacramento is putting an outreach program together.

**Withycombe:** California forests are at great risk for fire in drought years. Homes in forests are particularly at risk, clearing brush near developments is essential, Prescribed burns are necessary even though people complain about smoke; wildfires are much worse. Health issues are the biggest impact of PM and gaseous pollutants, and the effects are cumulative over many years. Don't go outside when air quality is bad

**7:30 p.m.** – Updates on other active issues, such as SMUD advocacy, Climate Emergency

Declaration, implementation of the Mayors' Climate Commission Recommendations, Climate Justice, and the Climate Action Plans of the County and City of Sacramento.

***Balaguer:** Sacramento County Climate Action Plan (CAP) is going ahead. It's important that health issues be included in the CAP.*

**7:50 p.m.** – Other business and announcements / Topics for future meetings

***Teranishi:** SABA's Bike Match program is providing bikes to people who need them. Bike valet service at events has resumed. SABA membership drive is underway.*

**7:55 p.m.** (approx.) – Adjourn

Next TAQCC meeting: Thurs., Nov. 5, 5:45 p.m., probably video conference

Other upcoming events of interest:

Oct. 10, 1 pm -- [Sac Transit Riders Union](#) (videoconference)

Printable TAQCC agendas and minutes are available on the ECOS [Web site](#).