Using Vegetation to Improve Public Health

BREATHE®
CALIFORNIA
of Sacramento-Emigrant Trails
The Clean Air and Healthy Lungs People
Since 1917

Kori Titus, CEO

Who Is Breathe California?

- Breathe California of Sacramento – Emigrant Trails is dedicated to healthy air and preventing lung and other air-pollution related diseases by partnering with youth, advocating public policy, supporting air pollution research, and educating the public.
- Founded in 1917 in Sacramento
- Five affiliates around the state

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Focus on Protecting and Improving Public Health

- Use Research, Education and Advocacy to achieve our goals
- Our Health Effects Task Force, chaired by Jananne Sharpless, former Chairwoman of CARB, has been conducting research carried out by volunteer experts for over a decade, including the 2008 wind tunnel study

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Sacramento Region

- Sacramento's Air Quality consistently ranks in the top 10 worst areas and the region is designated as a severe nonattainment area for the 1997 federal 8-hour ozone standard with an attainment deadline of June 2019
- Mobile sources are the cause of 70% of our pollution in the summer. In order to change behaviors, we feel that land use is a key component for the region to reach attainment
- However, infill, transit oriented development and other smart growth strategies often put people near heavily travelled roads and freeways
- We see vegetative barriers as a potentially effective mitigation effort

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Vegetation Studies

- Work closely with our local air districts – SMAQMD funded our initial vegetation studies
- The 2008 wind tunnel study conducted at the University of California, Davis was our exciting first step
- The wind tunnel study showed that all forms of evergreen vegetation were able to remove 30% to 80% of very fine particles at wind velocities below roughly two miles per hour during the 2 to 4 seconds in which the particles were within the vegetation chamber. Redwood and deodar were about twice as effective as live oak.
- Very encouraged by these findings and are looking for funding to continue our research in real-life settings

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Programs/Areas with Potential Impacts

- Vegetative barriers at:
  - existing schools, hospitals, etc.
  - Infill projects
  - Near rail yards
- Complete streets
- Green highway initiatives

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