

Technical Advisory Group (TAG) Design Team Expert Recommendations (08/21/2020)

| TAG experts | Affiliation | Bio/Resume | Air Monitoring/ Chemical Analysis/ Air Emissions Source | Public Health | Data Simulation/Statistician/Economist | Land Use/ Urban Planner/ Transportation Planner | Environmental Justice/ Social Justice Advocate | School District | Local Orgs/Youth | Businesses Rep (Coating Industry/ Automotive Repair/Commercial Truckers) | Communication/Community Outreach |
|---------------------------------|--|------------|---|---------------|---|--|---|-----------------|------------------|--|----------------------------------|
| Earl Withycombe | California Air Resource Board (CARB) Air Pollution Engineer; Environmental Council of Sacramento (ECOS) | X | X | | | | | | | | |
| Juan Carlos "JC" Garcia Sanchez | Environmental Justice Policy Analyst at the Policy Institute at UC Davis Institute of Transportation Studies | X | | | | X | | | | | |
| Joel Craig | Environmental Consultant; Ambient Air and Meteorological Monitoring | X | X | | | | | | | | |
| Julia Gowin | Regional Urban Forester, California Department of Forestry and Fire Protection | X | | | | X | | | | | |
| Katie Valenzuela | California Environmental Justice Alliance (CEJA); Elected Sacramento City Council; | X | | | | | X | | | | |
| Jesus Hernandez, Ph.D. | Urban Sociologist, Work highlights importance of equitable urban and environmental Planning | X | | | | X | X | | | | |
| Jonathan Bobadilla | Energy Specialist with the California Energy Commission. Bachelor's in Economics | X | | X | | X | | | | | |
| Dr. Taiwo (Tentative) | | | | X | | | X | | | | |
| Joelle Toney | Red Black and Green Environmental Justice Coalition; | | | | | | X | | | | |
| | Elk Grove Unified School District | | | | | | | X | X | | |
| | Sac City Unified School District | | | | | | | X | X | | |
| | Sac Tree Foundation | | | | | X | | | | | X |

Technical Advisory Group (TAG) Candidate Bios and Resumes

The following are short bios and resumes describing the background of potential candidates for the AB 617 Technical Advisory Group (TAG) for Steering Committee discussion. Candidates have submitted resumes, short bios, or both for consideration.

TAG Candidates

- 1) Earl Withycombe
- 2) Juan Carlos Garcia Sanchez
- 3) Joel Craig
- 4) Julia Gowin
- 5) Katie Valenzuela
- 6) Jesus Hernandez PhD.
- 7) Jonathan Bobadilla

Posting date: 08/21/2020

Earl Withycombe

Earl Withycombe has worked as an air pollution engineer for the past 47 years. While most of his career was devoted to professional consulting, he has worked for the California Air Resources Board as a dust control expert for the past 14 years. Earl has been a community activist all of his adult life, including serving two terms on the Sierra County Board of Supervisors in the 1980s. He is a board member emeritus and past president of Breathe California of the Sacramento Region and the Environmental Council of Sacramento. Earl earned a bachelor's degree in Aeronautical Engineering at the Massachusetts Institute of Technology and is a registered Civil Engineer in California.

Earl Wythycombe
Air Quality Monitoring Expert

Résumé

Earl Withycombe

Education

1970, B.S., Aeronautical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts

1989, Certificate in the Management of Hazardous Materials, University of California, Davis, California

Professional Experience

8/06 to present Air Resources Engineer/SCAQMD Planning Liaison
California Air Resources Board

Served as the planning liaison to the South Coast Air Quality Management District, facilitating coordination between ARB and the District in the development of the 2007 8-hour ozone and PM_{2.5} State Implementation Plan for the South Coast Air Basin. Serve as the planning liaison to the Sacramento Metropolitan region, the Mountain Counties Air Basin, and Eastern Kern County. Provide technical oversight to windblown dust issues at Owens Lake, Mono Lake, and the Salton Sea. Serve as a member of the Oceano Dunes State Vehicle Recreation Area Scientific Advisory Group, and as a member of the Salton Sea Task Force's Science and Air Quality Committees. Conduct technical analysis in support of air quality planning activities including control measure benefit quantification, emission inventory refinement, air quality impact assessment, and control technology research.

5/93 to 6/06 Partner
Sierra Research

4/88 to 5/93 Senior Engineer
Sierra Research

Worked as a partner and project manager in a consulting firm specializing in air quality analysis and management. Experience included management of regulatory development and project evaluation services for governmental clients; management of process, control, and instrumentation design; emission and impact evaluation; and compliance strategy services for private clients. Technical contributions included air quality modeling, combustion modeling, control equipment design and analysis, ambient air quality analysis, ambient and stack sampling project design, screening risk assessment, permit development, and particulate matter and fugitive dust emission factor development

services for a variety of projects, including those related to power production, cogeneration, industrial boilers, geothermal activities, mineral extraction and processing, lumber production, toxic waste treatment, fugitive dust, and Superfund remediation. Advocacy services included permit negotiation, technical briefing and presentation, expert witness testimony, legal support, rulemaking representation, regulatory interpretation, and technical reporting for a variety of public and private clients.

7/83 to 4/88 Managing Partner, Sierra Air Consultants

Founded and managed a small consulting firm specializing in air quality impact analysis. Directed the development of permit applications and provided air quality troubleshooting services to a number of wood processing clients. Analyzed the environmental impacts of several energy projects for environmental and governmental clients. Managed all fiscal and administrative functions for the partnership.

7/75 to 4/88 Air Basin Engineer
Mountain Counties Air Basin,
Lake Tahoe Air Basin

Established and managed a consulting practice providing exclusive and comprehensive technical services to an association of nine county air pollution control districts in the Sierra Nevada region of California. During vacancies in administrative positions, assumed the responsibilities of program management for interim periods in several Districts in the Air Basin. Drafted numerous amendments to the air basin plan in implementing federal and state mandates and responding to new local problems. Developed annual budgets for a number of districts.

Developed ozone nonattainment plans for El Dorado and Mariposa Counties. Drafted and implemented the first local Prevention of Significant Deterioration program in rural California. Analyzed compliance with emission limits and ambient air quality standards for all major and many minor new and modified source applications within the nine county region. Developed comprehensive stationary and area source emission inventories for the Mountain Counties Air Basin (1977) and for the Lake Tahoe Ozone Nonattainment Plan (1981). Designed air quality monitoring networks throughout the Air Basin, including systems to measure the impacts of controlled wildland vegetative burning and residential wood combustion. Developed toxic pollutant test burn plans for the experimental incineration of toxic wastes in cement kilns, rotary kilns, and starved air incinerators. Designed a testing program and developed district regulations for the assessment and control of asbestos emissions from unpaved roads and parking lots. Certified all test plans and oversaw all stationary source testing in the Air Basin.

Served as the Co-Chairman of the CAPCOA-ARB New Source Review Rule Committee that developed the 1982 CAPCOA NSR rule which served for many years as a model regulation for the permitting of new sources by districts. Drafted and successfully lobbied several legislative bills amending the relationship between districts and the California Air Resources Board and authorizing experimental programs seeking

innovative solutions to air quality problems. Drafted language and lobbied for passage of AB 3374 (1986), the second Calderon landfill testing bill, which refocused priorities on active landfills and adopted more cost effective monitoring protocols for small rural landfills.

11/86 to 4/87 Air Pollution Control Officer
Northern Sierra Air Quality Management District

Designed and managed the process for unifying three county air pollution control districts into a multi-county agency to increase program service levels while reducing administrative costs. During agency formation, served as agency administrator and organized basic fiscal, regulatory, enforcement, legal and legislative programs. Designed and enacted a stationary source permit fee proposal that dramatically increased program revenues. Developed the first district wildland vegetation management burning regulation and permit fee program in the state.

1/79 to 4/86 Member and Chairman
Sierra County Board of Supervisors

Served two terms as a member and three years as Chairman of the Board of Supervisors of Sierra County. Chaired the Board's Finance, Personnel, and Health & Welfare Committees. Served as the de facto county administrator coordinating multi-department responses to legislation mandates and community problems. Drafted and enacted numerous ordinances, resolutions, and Board orders in the areas of general administration, health, personnel management, human services, finance, and public safety. Served seven years as the Chairman of the County Board of Equalization. Together with the County Auditor, supervised the development of annual county budgets and fiscal policy. Served as the County's labor negotiator for six years. Represented the County on numerous inter- and intra-county boards, commissions, and councils. Served two years on the Executive Committee of the County Supervisors Association of California. Drafted and sponsored several bills streamlining state statutes related to unique rural concerns. Coauthored and led the successful lobbying effort to secure passage of SB 1691 (1983) which established the state's first locally administered groundwater management districts.

8/73 to 1/75 Air Pollution Control Officer
County of Sierra

Served as the program manager of a rural county air pollution control district. Developed and implemented compliance plans for two timber processing facilities. Managed the accounting, budget, reporting, permit review, and air quality monitoring functions of the agency. Developed the technical justification for formation of the Mountain Counties Air Basin to supplant the mountain portions of the Sacramento and San Joaquin Valley Air Basins. Drafted major portions of the first Air Basin Plan and related regulations.

Credentials, Memberships, and Awards

Qualified Environmental Professional, Air Pollution; Institute of Professional
Environmental Practice

Registered Civil Engineer, California

Member, Air and Waste Management Association

Outstanding Individual, 1994 Summer Smog Season Campaign, Partners for Clean Air,
Sacramento, California

Clean Air Award, American Lung Association of Sacramento-Emigrant Trails, 1996

Environmentalist of the Year Award, Environmental Council of Sacramento, 1997

Pottenger Award for Volunteer Service, American Lung Association of California, 2002

Juan Carlos Garcia Sanchez

Juan Carlos Garcia Sanchez is the Environmental Justice Policy Analyst at the Policy Institute at UC Davis Institute of Transportation Studies. His work provides an equity and environmental justice lens to the transportation research projects being conducted across California. Through his work, he is able to connect researchers with community voices that have historically been burdened with the negative effects of transportation policy. Most importantly, his work focuses on the ensuring that the benefits of a future low-carbon transportation system are equitably distributed in California's disadvantaged communities. Prior to this current appointment Juan Carlos served as adjunct faculty in Geography at various community colleges in the Orange and Los Angeles County.

Joel Craig

Environmental Consultant
Specializing in Ambient Air and Meteorological Monitoring
craigairmonitoring@att.net

CAPABILITIES AND SERVICES OFFERED:

- ❖ Air monitoring station operation.
- ❖ Producing quality assurance documents and standard operating procedures and obtaining approval from regulatory agencies.
- ❖ Data Validation and Review
- ❖ Hands on troubleshooting complex instrumentation and computer tools.
- ❖ Configuration and installation of monitoring stations.
- ❖ Training station operators and data processing analysts.
- ❖ Evaluating network operations and providing guidance on increasing efficiency and data quality.
- ❖ Oversight of network operations.
- ❖ Performance and technical systems audits.
- ❖ Assistance in implementing data acquisition using the latest technologies.
- ❖ Analysis of air quality data.

EXPERIENCE:

- ❖ **Thirty nine years' experience in all aspects of ambient air monitoring and data analysis.**
 - Responsible for all aspects of the operation of SLAMS, PSD, Tribal, and PAMS monitoring networks.
 - Hands on and oversight of all levels of field operations, data processing, and personnel management.
- ❖ **Experienced in all aspects of Quality Assurance related to ambient air monitoring.**
 - Trained the Republic of China EPA on performance audit concepts and procedures. Performed the first performance audits of their monitoring network.
 - Produced numerous Quality Assurance Project Plans and S.O.P.'s that have been approved by the US EPA and CARB.
 - Assisted monitoring organizations comply with Technical System Audit findings.
 - Provided regulatory oversight to PSD monitoring networks.
 - Performed numerous audits of monitoring stations.
- ❖ **Pioneered innovative technologies using remote operation and automation of station operation.**
 - Implemented new procedures using computer communications and automation that reduced the labor costs to operate a network to one third of the previous costs.
 - Developed station design modifications that resulted in a reduction in power consumption to one half of the previous level.
 - Developed custom designed "smart" electronic documents used in all areas of monitoring operations.
- ❖ **Designed, installed and operated monitoring stations in unique locations that required innovative approaches.**
 - Designed, installed, and operated two monitoring stations located on the Channel Islands National Park. These efforts required innovative approaches to power generation and use, corrosive coastal environment, data acquisition, and transportation challenges.
 - Designed, installed, and operated a PM10 and meteorological monitoring station that operated entirely on solar power.

- ❖ **Expert in trace hydrocarbon measurements.**
 - Performed early trace hydrocarbon measurements prior PAMS regulations.
 - Successfully deployed the first PDFID analytical system on the west coast. This system was used as a model for CARB in implementing their first PDFID system.
 - Implemented trace hydrocarbon speciation program for Ventura County APCD prior to PAMS regulations.
 - Installed and operated a real time gas chromatograph system to gather PAMS VOC data. The data recovery from this system was over 90% and passed all audits.
- ❖ **Experienced in tracer studies.**
 - Served as the laboratory manager for the 1991 winter model validation study at the Rocky Flats Nuclear Arsenal. Supervised the on-site analysis of over 25,000 samples for sulfur hexafluoride tracer.
 - Served as the field manager for a dual tracer study at a major petroleum refinery in California.
- ❖ **Experienced in managing major air quality field studies.**
 - Managed a yearlong study of particulates that utilized PM10 and PM2.5 filter measurements with extensive chemical speciation of the filter media.
 - Managed a yearlong study utilizing both TEOM and Beta Attenuation real-time PM10 monitors.
 - Managed a wind blown dust plume mapping study that utilized over 25 EBAM samplers in San Luis Obispo County.
 - Managed 8 station ozone network for the San Joaquin Valley Air Quality Study.
- ❖ **Experienced with emergency response efforts at nuclear power plants.**
 - Served on the unified dose assessment team for the Diablo Canyon Nuclear Power Plant for over 8 years.
 - Instrumental in the re-design of the meteorological measurement network and modeling system used for emergency response at the Diablo Canyon Nuclear Power Plant.

REVILANT PUBLICATIONS:

- ❖ “Field Comparison Study of the Combustion Engineering 8202A and Pre-Concentration Direct Flame Ionization Detection for Ambient Measurements of Non-Methane Hydrocarbons”, Proceedings of the 1988 EPA/APCA International Symposium: Measurement of Toxic and Related Air Pollutants.
- ❖ “Discrepancies in Ambient Non-Methane Hydrocarbon Measurements among Various Methods”, Proceedings of the 1990 EPA/AWMA International Symposium: Measurement of Toxic and related Air Pollutants.
- ❖ “Improvements to PM-10 Measurements”, Proceedings of the 1995 EPA/AWMA International Symposium: Particulate Matter.
- ❖ “Improving Efficiency and Data Quality Using Automation and Remote Operation”, Proceedings of the 2005 EPA/AWMA Symposium: Air Quality Measurement Methods and Technology.
- ❖ “The Nipomo Mesa Phase 1 Particulate Study”, San Luis Obispo County Air Pollution Control District, 2004.
- ❖ “The Nipomo Mesa Phase 2 Particulate Study”, San Luis Obispo County Air Pollution Control District, 2010.
- ❖ “Particulate Community Monitoring Project”, San Luis Obispo County Air Pollution Control District, 2013.

Julia Gowin

Julia Gowin is the Regional Urban Forester for Northern California/Sacramento Valley for the California Department of Forestry and Fire Protection (CAL FIRE). In her capacity, she administers grants, supports communities, non-profits, and other municipal groups to create and maintain sustainable urban forests. Prior to her current position, she worked as Consulting Urban Forester.

Julia holds a Diploma in Horticulture from the University of Hannover, Germany, a Master's in Horticulture with emphasis on Urban Forestry from Virginia Tech, and a PhD in Forestry with a focus on Urban Forestry also from Virginia Tech. She is a California Registered Professional Forester, an ISA Certified Arborist, holds a TRAQ Certification, and is the Chair of the Women in Arboriculture Committee for the Western Chapter ISA.

JULIA GOWIN

2180 Harvard St #200
Sacramento, CA 95815

julia.gowin@fire.ca.gov
phone: 916.201.8942

REGIONAL URBAN FORESTER

Urban forestry support to communities, non-profit groups, and other municipal governments to create and maintain sustainable urban forests. Technical expert to support grant-related activities such as tree plantings, urban tree inventories, urban forest management plans, and innovative urban forestry projects.

RELEVANT WORK EXPERIENCE

California Department of Forestry and Fire Protection

Dates: 9/2017 - present

Regional Urban Forester – FORESTER I

2180 Harvard St # 200

Sacramento CA, 95815

Supervisor: John Melvin (916) 508.2767

- Assist in the design, implementation & management of State & Federal urban forestry grant programs.
- Initiate the exchange of technical information between governments, communities, organizations, industry, and public.
- Support seminars, workshops, conferences, public hearings, or meetings related to the management of sustainable urban forest ecosystems.
- Prepare and present technical and educational materials relating to urban forestry and urban ecosystem management.
- Maintain urban forestry knowledge by attending appropriate trainings, seminars, classes, and meetings.
- Support wildfire incidents activities.

Davey Resource Group

Dates: 10/2013 - 08/2017

Consulting Urban Forester

Western Regional Office

7627 Morro Rd

Atascadero, CA 93422

October 2013 to August 2017

Supervisor: Amber Krebbers (805) 710.1447

- Worked closely with client as project lead.
- Planned, tracked, and reported projects.
- Supervised foresters, arborists, and crews.
- Oversaw tree root excavation and data collection of root excavation project.
- Completed i-Tree Eco assessments in Colorado.
- Assisted with tree inventories.
- Supported Urban Forest Management Plans Completions.

Virginia Tech

Dates: 6/2013 to 10/2013

Post-doctoral Associate

Urban Forest Ecosystems

Department of Forest Resources and Environmental Conservation

Advisor: Eric Wiseman (540) 231.5148

- Assisted with iTree-Streets assessments of various Virginia municipalities.
- Wrote reports based on iTree-Streets assessments.

JULIA GOWIN

University of California Davis

Dates: 8/2011 – 5/2013

Postdoctoral Scholar

Urban Ecosystems and Social Dynamics

Department of Land, Air, and Water Resources

Supervisor: Qingfu Xiao (530) 759.1727 and Greg McPherson (retired; USDA Forest Service)

- Supported the remote-sensing landcover assessment for various locations.
- Conducted field surveys and wrote reports.
- Helped with statistical analyses.

EDUCATION

Ph.D. Virginia Tech, Blacksburg, VA, Department of Forest Resources and Environmental Conservation
Field of Study Urban Forestry

M.S. Virginia Tech, Blacksburg, VA, Department of Horticulture
Field of Study Urban Forestry

Diploma, University of Hannover, Hannover, Germany
Field of Study Horticulture

PROFESSIONAL LICENSES, CERTIFICATIONS, AND AFFILIATIONS

California Board of Forester – Registered Professional Forester #3095
International Society of Arboriculture - ISA Certified Arborist MA-5129A
International Society of Arboriculture - TRAQ
Western Chapter ISA - Chair, Women in Arboriculture Committee

JOB RELATED TRAINING/QUALIFICATIONS

- Microsoft Excel VBA Level 1, 2020
- Microsoft Excel Level 3 and 4, 2019
- CLFA Archaeological training, 2018
- L-180 Human Factors in the Wildland Fire Service, 2017
- S-190 Introduction to Wildland Fire Behavior, 2017

LANGUAGES

German - native

English - fluent

Katie Valenzuela

Katie Valenzuela is Policy & Political Director for the California Environmental Justice Alliance, and was recently elected to serve on Sacramento City Council. Prior to joining CEJA, Katie served as Principal Consultant for the Joint Legislative Committee on Climate Change Policies, and as Capitol Director for Assemblymember Eduardo Garcia. A community organizer for over 20 years, Katie helped start the Sacramento Urban Agriculture Coalition, was one of the first Sacramento representatives on California's AB 32 Environmental Justice Advisory Committee, and is co-chair of the Sacramento Community Land Trust. Katie was born and raised in Oildale, California, and holds a Bachelors and Masters degrees in Community Development from U.C. Davis.

Bio for Jesus Hernandez, PhD

The research of urban sociologist Dr. Jesus Hernandez is dedicated to understanding social problems that affect community cohesion, neighborhood development, and quality of life. His work highlights the importance of equitable urban and environmental planning, housing finance, and public policy in building effective neighborhood-based economic development strategies. The urgency to connect neighborhoods to policy, planning, and funding resulted in JCH Research, a consulting firm he created to provide flexibility in connecting academic research and macro-scale urban policy to the on-the-ground practice of sustainability and climate change at the neighborhood scale. His research approach prioritizes the neighborhood as an important unit of analysis and emphasizes neighborhood-scale economic development and revitalization in ways that directly address racial/spatial wealth gaps and disparate public investment patterns. His current research centers on developing a neighborhood-based economic development template as a means of implementing climate change and sustainable community strategies in neighborhoods experiencing long-term divestment and poverty.

In addition to a number of research and academic publications on the effects of public policy on race and neighborhood stability, he is a frequent speaker at fair housing, legal, and academic conferences and university classrooms across the country. He also assists nonprofit agencies with research on housing, neighborhood-based energy planning, health care, and sustainable community strategies. Highlight presentations include the Open Research Conference on Globalization in Tokyo, Japan, the International Conference on Urban Justice and Sustainability in Vancouver, British Columbia, the United Nations Council on Women in New York and testifying before the National Commission on Fair Housing and Equal Opportunity regarding predatory lending practices in California.

Jonathan Bobadilla

Jonathan Bobadilla is an Energy Specialist with the California Energy Commission. Through the Clean Transportation Program, Jonathan facilitates policy, investments, and supports implementation of zero-emission vehicle technology, workforce training and development, and equity projects. Jonathan also serves on many state interagency teams and local public-private-partnerships. Jonathan has published over a dozen reports on localized health impacts on disadvantaged and low-income communities. Prior to his work with the CEC, Jonathan was an estimator, and production support specialist in the construction field. Jonathan holds a Bachelor's degree in Economics from California State University, Sacramento.