









Sacramento Valley Basinwide Air Pollution Control Council

AGRICULTURAL BIOMASS CONFERENCE

Opportunities & Challenges of Agricultural Biomass Utilization October 5-6, 2023

SUMMARY REPORT

February 2024

Background

For several years, biomass has been a discussion topic for the Sacramento Valley Basinwide Air Pollution Control Council (BCC) and the Technical Advisory committee (TAC). Facilities that use biomass for energy or other bioproducts have been closing over the past decade, yet there is an ever-increasing need for biomass operations for several reasons. Tree mortality from drought, disease, and wildfires have created tons of forest biomass. Left on the forest floor or as standing dead wood can increase climate pollution and enhance the risk of catastrophic wildfire and smoke impacts that further deteriorate air quality. Agricultural biomass is ubiquitous in the northern Sacramento Valley and is typically burned as a waste biproduct resulting in



basinwide air quality impacts. Any reduction in smoke from agricultural or prescribed burning would be a benefit to the region's communities and overall air quality attainment goals.

In 2023, the BCC decided to highlight the many economic and air quality co-benefits that can be realized by utilizing biomass as a resource instead of a waste byproduct. It was determined the conference would focus on agricultural biomass because the BCC basin is predominately agricultural and because forest biomass already has significant attention from state and local agencies. The conference would also serve as a mechanism to bring BCC members together in-person for the first time since January 2020 and underscore their role in the region to a broader audience.

Planning & Logistics

A planning committee was formed in March 2023 consisting of seven staff members from various air districts in the BCC (see Table 1). The committee was responsible for researching and determining venue, agenda and speakers, and all other conference logistics. The committee met biweekly for the first four months and then weekly in the final two months leading up to the conference. Decisions related to conference date, venue and expenses were brought forward to the TAC and BCC for approval. The TAC also reviewed conference planning efforts during their monthly meetings and provided guidance and suggestions to the planning committee.

Table 1. Biomass conference planning committee members

| Name | District |
|-----------------------|--|
| Amy Roberts | Sacramento Metropolitan Air Quality Management District |
| Bruce Springsteen | Placer County Air Pollution Control District |
| Christiana Darlington | CLERE Inc.; Placer County Air Pollution Control District |
| Gretchen Bennitt | Yolo Solano Air Quality Management District |
| Paul Hensleigh | Yolo Solano Air Quality Management District |
| Peter Angelonides | Feather River Air Quality Management District |
| Sondra Spaethe | Feather River Air Quality Management District |

It was decided the conference would be a two-day event that included a field trip to see a biomass energy project and an evening networking reception for conference attendees. The BCC meeting would

be held after the conference on the second day. The target audience for the conference included state and local government agencies, policymakers, academia, consultants, non-profits, and agricultural businesses and growers to inspire discussion at all levels necessary for positive action for agricultural biomass utilization. Outreach graphics and themes were created for the conference and a webpage was also developed to showcase conference information (www.airquality.org/biomass). All conference outreach and registration advertisements were done via Constant Contact. Three separate emails were sent out to an email list of approximately 500 people on June 30, August 4, and September 1.

The agenda included a variety of session types – speakers, panels, break-out groups. Speakers were recruited from a mix of state and local government agencies, academic and research institutions, and consultants, lobbyists, and businesses actively engaged in biomass from different knowledge, advocacy and economic angles. The agenda and overall conference theme was meant to start with a big picture perspective and then move into more local and on-the-ground viewpoints, highlighting challenges and opportunities throughout. The field trip was held at Dixon Ridge Farms to showcase a biomass project jointly operated between a landowner, Russ Lester, and SynTech Bioenergy that converts walnut shells to energy and other bioproducts. The networking session occurred after the field trip and allowed for additional conversations to occur amongst attendees. See conference agenda and speaker information handouts for additional details (Attachment 1).

Conference Expenses

The conference was held at the Hotel Winters in Winters, CA on October 5 and 6, 2023. Winters was selected because of its location within the agricultural region of the northern Sacramento Valley while still being close to Sacramento and able to draw attendance from State agency staff and legislators. The BCC entered into a contract with Hotel Winters for use of their ballroom and courtyard for the conference and networking session, meals for all conference sessions, and audio-visual set up. Other expenses came from transportation to and from the Field Trip location using a private bus service. The total cost for the conference was \$21162.22 (Table 2). Planning committee staff time is estimated at approximately 600 hours.

Table 2. Biomass conference expenses

| Category | Description | Cost* |
|-----------------------------|---|-------------|
| Conference Spaces | Orchard Ballroom, Railroad Courtyard | \$2,224.36 |
| Food | Meals, Coffee, Tea, Day 1 cookies, reception appetizers | \$14,984.37 |
| A/V Resources | Projector, Screen, Microphone Kit | \$1,243.03 |
| Networking Reception | Cash Bar set-up and Bartender | \$457.96 |
| Transportation | Lux Bus America (2 buses) | \$2,252.50 |
| Total | | \$21,162.22 |

^{*}All Hotel Winters costs included a service charge and sales tax.

Conference Attendance

The number of people who registered for the conference exceeded the attendee goal of 125 people. Actual attendance was approximately 65% of registered attendees (Table 3).

Table 3. Biomass Conference registration and actual number of attendees

| Conference Session | Registered Guests | Actual Attendees | % Actual Attendance |
|---------------------------|-------------------|------------------|---------------------|
| Day 1 Conference | 130 | 90 | 67 |
| Day 2 Conference | 104 | 70 | 65 |
| Field Trip | 75 | 45 | 59 |
| Networking Reception | 61 | 34 | 55 |

A wide variety of stakeholders joined the conference including local and state government agencies (30%), businesses (30%), consultants and non-profits (8%), and academia (8%). Elected officials (16%) were well represented by the BCC and other local city council members and county supervisors. Only a handful of staffers for state and federal legislators were present.

Table 3. List of elected officials that participated in the Agricultural Biomass Conference.

| Name | Representation |
|-------------------------|---|
| David Morgan | Office of U.S. Representative Doug LaMalfa – California District 1 |
| Creighton Kauss | Office of CA Senator Brian Dahle - California Senate District 1 |
| Samuel Perkins | Office of CA Senator Brian Dahle - California Senate District 1 |
| Daurice Kalfsbeek-Smith | Colusa County Supervisor, District 2 |
| Gary Evans | BCC Member, Colusa County Supervisor, District 4 |
| Mat Conant | BCC Member, Sutter County Supervisor, District 5 |
| Monica Rossman | Glenn County Supervisor, District 2 |
| Jim Yoder | Glenn County Supervisor, District 4 |
| John Vasquez | Solano County Supervisor |
| Lucas Frerichs | Yolo County Supervisor, District 2 |
| Angel Barajas | BCC Member, Yolo County Supervisor, District 5 |
| Humberto Izquierdo | Yolo County Ag Commissioner |
| Carol Scianna | Councilmember City of Winters, Board Member Yolo-Solano AQMD |
| Michael Pasquale | Councilmember, Yuba City, District 3 |
| Rose Tyron | Vice-Mayor Town of Paradise |
| Tami Ritter | Butte County Commissioner |
| Greg Janda | BCC Member (alternate), Rocklin Vice Mayor |
| Eric Guerra | BCC Member, CARB Board Member, City of Sacramento Vice-Mayor and City Councilmember |
| Sarah Aquino | Councilmember City of Folsom, Board Member Sac Metro AQMD |
| Taylor Kayatta | Sutter County Deputy County Administrator, Sacramento City School Board Member |
| Pati Nolen | BCC Member, Tehama County Supervisor, District 3 |

Conference Takeaways & Feedback

The conference was well attended, and robust conversations occurred between the variety of stakeholders present during breaks, lunch, the field trip, the networking reception, and the final session of the conference, a Breakout Session that allowed for open dialogue and brainstorming for participants. Both positive and critical comments were made by speakers and attendees alike. The BCC also had an opportunity to provide feedback during their post-conference meeting. The following is a summary of some of the main highlights and comments received:



Figure 2. Conference attendees at Hotel Winters on October 5, 2023

- For biomass utilization to increase, especially ag biomass, there needs to be more emphasis in state programs to economically support biomass utilization, e.g., increase bioproduct and biofuel production and use, reauthorize BioRAM program, expand BioMAT program, institute requirements for bio-based product use (e.g., AB857), require utilities sign power purchase agreement with biomass facilities, provide funding support for small-scall biomass projects, biofuel and CO2 sequestration projects.
- Keep biomass industries local and incentivize local use of biofuels and bioproducts to capitalize on local economic and workforce opportunities and reduce transportation and environmental impacts at the same time.
- Focus attention on regional planning efforts and establish upland-lowland and rural-urban partnerships and industry connections to facilitate biomass utilization.
- The conference was too focused on government and State agencies and should have focused more on growers to move toward biomass solutions. Recommendations for future conference efforts to include grower-specific panels.
- Incentives are key to transition to alternatives to open burning because the equipment replacement solutions are often very costly. The State budget should include funding for biomass, agnostic subsidy programs for both old and new biomass facilities, and incentives to increase biomass use.
- Moving away from agricultural burning requires significant work to build relationships with stakeholders and growers, performing outreach, and funding demonstration projects.
- Concerns and pushback from environmental justice groups has decreased discussion, legislative
 action, and State support for biomass projects. There needs to be a balance between environmental
 justice concerns and the benefit from operation and development of biomass facilities.
- California government agencies should de-emphasize their focus on electric vehicles and utilize biomass to a much larger scale and support composting and other bioproduct business efforts.
- Local officials will have to contend with benefits of biomass and the concerns and complaints that can be raised by residents due to biomass projects that create odors.
- The State legislature has fewer rural voices at this point in time, but current leadership are from more rural areas of California (Salinas, Humboldt) and may prove helpful for working on biomassrelated legislation or funding programs.

- There needs to be more advocacy and more voices to push for biomass-related legislation and funding to support biomass facilities and new programs. If air district leadership can get behind a common message of support for biomass, this would go a long way to supporting biomass utilization.
- A biomass coalition of communities, biomass facilities, air quality regulators and local elected officials would be very helpful for strong advocacy of biomass utilization.
- While the state aims for a zero-emission future, biomass can serve as a bridge during the energy transition. Biomass should not be removed from renewable energy definitions, e.g., by the California Energy Commission.
 Figure 3. Conference attendees at Dixon Ridge Farms for a field trip to observe a bioenergy project.
 Figure 3. Conference attendees at Dixon Ridge Farms for a field trip to observe a bioenergy project.
- Local, community choice aggregation programs serve to keep power portfolios local and use power generation from renewable resources while keeping costs down for local customers. These programs could increase the use of biomass energy.
- Solutions should be found to keep programs local to reduce transportation emissions and reduce the transport of pests and disease between regions. New Source Review permitting restrictions should allow for onsite composting projects. Composting should be designated as an Essential Public Service.
- Regulations are some of the biggest barriers to finding local solutions that will have overall benefits
 for jobs, reducing emissions, and tackling waste issues. Legislators and regulators would benefit
 greatly from education on farming processes and techniques.
- Education, outreach and multi-stakeholder advocacy is needed to make progress on biomass and other common-sense, local solutions.
- Broad, umbrella regulations don't work well for different regions, especially rural areas of California that don't have resources and infrastructure of larger urban areas. There needs to be more regional solutions to solve the issues facing California.
- Regulations should encourage local, sustainable biomass usage and small distributed energy generation facilities.
- Air quality regulators (e.g., QEEPS) should collaborate and listen to biomass small operators and review and identify reasons for permit denials for biomass facilities to see if there are any commonsense solutions.
- Biochar is a valuable bi-product that has the potential to reduce NO2 emissions by 50-80% when incorporated into the soil and could be a good way to sequester carbon emissions. A standardization for the definition of biochar is needed.
- We need to bring attention back to biomass in a new way Biomass 2.0 that moves the conversation away from combustion and highlights non-combustion processes, e.g., gasification and pyrolysis and production of hydrogen and other beneficial products.



Outcomes & Next Steps

The 2023 Agricultural Biomass Conference was a successful event that raised awareness for those in attendance and sparked a desire for continued attention and action toward increasing biomass utilization to capitalize on the many benefits increased use would have in the northern Sacramento Valley. From the feedback received during and post-deliberations from BCC and TAC members, several near- and long-term next steps emerged.

NEAR-TERM ACTIONS

- 1) The federal government is investing heavily in clean energy projects through the Inflation Reduction Act and the associated Climate Pollution Reduction Grant (CPRG). On behalf of California, the California Air Resources Board (CARB) is submitting a Climate Action Plan in Spring 2024 with potential projects that could be funded by the CPRG. To take advantage of this rare funding opportunity, the BCC will submit a letter to CARB requesting the BCC be included in their submittal to fund non-combustion biomass energy projects in the northern Sacramento Valley Region.
- 2) Develop a biomass workgroup within the TAC to continue conversations and actions related to biomass utilization.
- 3) Form a coalition and focus attention on current legislators that would be willing to work on agricultural biomass legislation over the next two years.

LONG-TERM ACTIONS

- Increase BCC-member contributions to hire a lobbyist that would push for legislative actions, state programs and funding that are supportive of agricultural biomass utilization, e.g., BioRAM program flexibility and inclusion of agricultural biomass, price support measures (\$/mile for transportation expenses to biomass facility).
- 2) Establish pilot biomass program that will provide data that supports utilization of biomass.
- 3) Develop education campaigns, fact sheets and broad coalition to increase education and attention on the benefits of biomass projects for workforce development, air quality, climate, energy and waste solutions.
- 4) Create model rules that can be used by air districts for biomass projects.
- 5) Hold a biomass-focused workshop that expands coalition to include other partners, e.g., SJVAPCD.

CONCLUSION

The 2023 Agricultural Biomass Conference was the first such event hosted by the BCC. The conference highlights the BCC's role in the region that extends beyond the Smoke Management Program, but as a coordinating entity that can bring attention to topics and further goals important to northern Sacramento Valley communities. While significant cost and staff effort was involved in the conference development, it was a worthwhile endeavor that has provided new direction and energy for the BCC and their respective air districts. Resultant actions inspired by the Biomass conference will serve to advance clean air and climate goals, tackle future air quality attainment challenges, and bring about workforce and economic opportunities to the broader BCC region.

ATTACHMENT 1

Biomass Conference Agenda & Speaker List

Sacramento Valley Basinwide Air Pollution Control Council

Agricultural Biomass Conference

The Opportunities & Challenges of Agricultural Biomass Utilization

OCTOBER 5-6, 2023 - Winters, CA

AGENDA



THURSDAY, OCTOBER 5, 2023

Orchard Ballroom, Hotel Winters

7:30 am – 8:30 am Registration & Continental Breakfast

8:30 am – 8:45 am Welcome

Angel Barajas (Supervisor, Yolo County)

8:45 am – 9:00 am Opening Remarks

Shannon Douglass (Vice President, California Farm Bureau Federation)

9:00 am – 10:15 am Session 1: Why are we talking about agricultural biomass?

Moderator: Dr. Alberto Ayala (Executive Director, Sac Metro Air District)

Alicia Adams (Supervisor, California Air Resources Board)

Cara Morgan (Deputy Director, CalRecycle)

David Shabazian (Director, California Department of Conservation)

Dr. Glenda Humiston (University of California Agriculture & Natural Resources)

10:15 am – 10:30 am Brea

10:30 am – 11:45 am Session 2: Big Picture Challenges & Solutions for Biomass

Moderator: Erik White (APCO, Placer County APCD)
Dr. George Peridas (Science & Policy Officer, ZuCO2)

Karen Warner (Chief Executive Officer REAM Circular

Karen Warner (Chief Executive Officer, BEAM Circular)

Virginia Jameson (Deputy Secretary, California Department of Food and Agriculture)

Dr. Ami Gunasekara (Director of Science & Research, California Farm Bureau Fed.)

David Shabazian (Director, California Department of Conservation)

11:45 pm – 1:00 pm Lunch (Orchard Ballroom)

1:00 pm - 2:00 pm Session 3: Legislation & Policy on Biomass

Moderator: Gretchen Bennitt (APCO, Yolo Solano AQMD)

Sheraz Gill (Deputy APCO, San Joaquin Valley Air Pollution Control District)

Julee Malinowski-Ball (Executive Director, California Biomass Energy Alliance)

Michael Boccadoro (President, West Coast Advisors)













Moderator: Paul Hensleigh (Deputy APCO, Yolo Solano AQMD)

Mitch Sears (Executive Director, Valley Clean Energy)
Matt Summers (Chief Operating Officer, West Biofuels)
Wayne McFarland (CEO & Chairman, SynTech Bioenergy)

3:00 pm – 3:15 pm Break

3:15 pm – 5:30 pm Field Trip

Dixon Ridge Farms (SynTech Bioenergy)

Group Transportation provided to and from Dixon Ridge Farms

5:30 pm – 6:30 pm Networking Reception (Hotel Winters Railroad Courtyard)



Friday, October 6, 2023

Orchard Ballroom, Hotel Winters

8:00 am – 8:45 am Registration & Hot Breakfast

8:45 am – 9:00 am Opening Remarks

Eric Guerra (Vice-Mayor, City of Sacramento)

9:00 am - 10:30 am Session 5: Opportunities & Successes of Ag Biomass Use

Moderator: Anastacia Allen (APCO, Colusa County APCD)

Dr. Somayeh Nassiri (Associate Professor, UC Davis)

Evan Edgar (Principal Engineer and President, Edgar & Associates, Inc.)

Raymond Baltar (Director of the Sonoma Biochar Initiative, Sonoma Ecology Center)

Dan Pronsolino (General Manager, Dunnigan Hills Hulling and Shelling)
Greg Giguiere (Director of Vineyard Operations, Matchbook Wines)

10:30 am - 11:00 am Break

11:00 am – 12:00 pm Session 6: Breakout Session: Where do we go from here?

Moderator: Marcie Skelton (APCO, Glenn County APCD)

Stuart Gilchrist (Marysville City Council Member)

12:15 pm Lunch on own (not included in conference registration)

1:30 pm – 3:00 pm Basinwide Control Council Meeting (Orchard Ballroom)

BCC Members / Open to the Public







THANK YOU FOR JOINING THE AGRICULTURAL BIOMASS CONFERENCE!

Sacramento Valley Basinwide Air Pollution Control Council

Agricultural Biomass Conference

The Opportunities & Challenges of Agricultural Biomass Utilization

OCTOBER 5-6, 2023 - Winters, CA

SPEAKERS & PANELISTS













Shannon Douglass is the first vice president of the California Farm Bureau Federation, the director of the Glenn County Farm Bureau, and former chair of the CFBF Young Farmers and Ranchers State Committee. She and her husband are the owners of Douglass Ranch in Orland, CA where they raise beef cattle, forage crops, sunflowers, pumpkins and specialty seeds. She also founded CalAgJobs, an online listing of employment opportunities in California agriculture. Douglass serves on the Glenn County Fair Board of Directors and was a former director of the Glenn County Resource Conservation District.



Ali Adams is the Manager of the Central Valley Air Quality Planning Section at the California Air Resources Board, responsible for air quality planning for California's Central Valley, including the San Joaquin Valley, and certain other areas of the State, as well as for broader, statewide particulate matter (PM) planning and analysis efforts. Her team is lead in the review and preparation of State Implementation Plans (SIPs) for PM and ozone for select areas of the State, the California Regional Haze Plan, and the analysis of PM-related technical and policy issues. Additionally, her work focuses on data analysis related to air quality planning, including assessing the interrelation of PM air quality data, meteorology, and emissions in support of regulatory and policy directives designed to meet State and National Ambient Air Quality Standards (NAAQS). The team also reviews particulate matter data associated with exceedances of air quality standards resulting from natural events for exclusion of those data from regulatory determinations.



Dr. Glenda Humiston became vice president of UC Agriculture and Natural Resources in 2015. Glenda was raised on a cattle ranch, an active member of 4-H and brings over 30 years of experience working on public policy development and program implementation supporting sustainability. She served as a Peace Corps volunteer in Tunisia, as executive director of a nonprofit organization advocating farmland preservation and value-added agriculture development, and several years as a consultant on environmental and agricultural issues throughout the West. She served President Clinton as deputy undersecretary for natural resources and environment at USDA from 1998 to 2001 and managed the Sustainable Development Institute at the 2002 World Summit for Sustainable Development in South Africa and the 2006 World Water Forum in Mexico City. In 2009, Humiston was appointed by President Obama to serve as the California State Director at the USDA Rural Development. She produced a widely acclaimed guidebook on "Access to Capital" and has led efforts to bring rural issues to the forefront of the state's Economic Summit and policymakers throughout California. Humiston earned her Ph.D. from UC Berkeley in Environmental Science, Policy and Management, a master's degree in international agricultural development from UC Davis and a bachelor's degree in animal science from Colorado State University.



David Shabazian was appointed by the Governor as the Director of the Department of Conservation in October 2019. From working the soil with his hands to leading policies for working lands, David is a lifelong champion for natural resource stewardship. His career is built on bringing diverse stakeholders together with innovative methods to protect both the ecological and economic value of our natural and working lands. David grew up on a family farm in California's Central Valley that grew hay and grain for local dairies. David received a bachelor's degree in Agricultural Economics from UC Davis and a master's degree in Transportation Technology and Policy from UC Davis. He worked for the Sacramento Area Council of Governments for close to two decades, leading programs that were nationally recognized. David is a member of the Sacramento Food Bank and Family Services board of directors and has served on numerous other boards and committees centered around healthy foods, agriculture, and working lands.



Cara Morgan is the Deputy Director leading the Materials Management and Local Assistance division at CalRecycle. Cara has worked extensively on implementing the new organics recycling laws in an effort to fast track the fight against climate change. Cara has many years of experience successfully implementing and building the Circular Economy in California.



George Peridas has been working on carbon capture, removal and storage for almost two decades. He is a mechanical engineer and holds a Masters in Engineering and a PhD from the University of Oxford, as well as a Masters in Environmental Science and Policy from Imperial College. He began his career in academia in materials research, and then switched to energy markets consulting for the international firm Pöyry. George came to the U.S. in 2006 to join the environmental NGO movement and spent twelve years at NRDC working on climate change advocacy and specifically carbon capture and storage science, regulation and policy. He joined Lawrence Livermore National Laboratory in 2019, where he authored and co-authored reports on the regulation and economics of carbon capture, removal and storage, as well as in-depth analyses of how California and other jurisdictions can achieve carbon neutrality. Starting in October, 2023, George joined ZuCO2, a company founded by community members and landowners in the California Delta to pursue responsible carbon storage projects for the benefit of the climate and the greater Delta region.



Karen Warner is the founder and CEO of BEAM Circular, a new hub for the circular bioeconomy in California's North San Joaquin Valley that is transforming waste into environmental solutions and economic opportunity for disinvested communities. Born and raised in the Central Valley of California, Karen began her career in global health and has served in a variety of nonprofit, governmental, and private sector roles focused on cross-sector partnerships and scaling social innovation. In 2018 she moved back to the Central Valley and served as District Chief of Staff for Congressman Josh Harder, before transitioning to a focus on regional projects at the intersections of inclusive economic development, agriculture, and climate. Karen has a BA in Human Biology and MBA from Stanford University, and a MPA from the Harvard Kennedy School of Government. She is currently an Emerson Collective Fellow and a member of the Stanislaus County Commission for Women Board of Directors. She lives in Modesto with her husband and two young children.



Virginia Jameson was appointed Deputy Secretary for Climate and Working Lands at the California Department of Food and Agriculture in November 2021. She previously served as Climate and Conservation Program Manager at the California Department of Conservation. Prior to that, she was Deputy State Director for the American Farmland Trust, Management Specialist for the Monterey County Agricultural Commissioner's Office, a Board Aide for Monterey County Office of District 4 Supervisor Jane Parker, and Associate Director of the Ag Land Trust. Jameson holds dual Master of Arts degrees in International Affairs and Natural Resources and Sustainable Development from American University and a bachelor's degree in Environmental Studies from the University of California, Santa Cruz.



Dr. Amrith Gunasekara recently joined the California Bountiful Foundation as its new Director of Science and Research. He will conduct and support scientific studies on critical matters affecting California agricultural communities. Dr. Gunasekara previously served as the Science Advisor to California Agriculture Secretary Karen Ross, and as Environmental Program Manager for the Office of Environmental Farming and Innovation at CDFA, which specialized in environmental incentive programs and climate change issues. At 16-years-old, Gunasekara came to the United States from Sri Lanka where food security was an issue. He says that gives him an appreciation for what California's farmers and ranchers do for their communities on a daily basis that we often take for granted.



Sheraz Gill is the Deputy Air Pollution Control Office at the San Joaquin Valley Air Pollution Control District (SJVAPCD). Sheraz has over 22 years of air quality experience working with a wide variety of stakeholders both within the San Joaquin Valley and around the state. He has worked directly on a variety of high-profile air pollution issues including developing State Implementation Plans, transportation growth challenges, the inclusion of agricultural into air quality permitting and wildland fire mitigation efforts. Within SJVAPCD, he currently oversees the planning efforts required by the federal and state governments, rule development, technology advancement, air quality analysis, air quality modeling, air monitoring, incentives and grants programs. He has been at the forefront of providing the public with the most up to date air quality information and in developing the most stringent regulations. He graduated with a BS in mechanical engineering at California State University Fresno.



Julee Malinowski-Ball is a Partner and lobbyist at Public Policy Advocates, LLC with over 20 years of hands-on lobbying and consulting experience in Sacramento at the Legislature and regulatory agencies, including the Natural Resources Agency (CAL FIRE), California Environmental Protection Agency, California Energy Commission, California Air Resources Board and California Public Utilities Commission. Over this period, she has represented clients on many resources-based issues such as air quality, climate change, tree mortality, power plant siting procedures, renewable energy, distributed generation, alternative transportation fuels, water quality, supply and distribution, and transportation and other infrastructure issues. Julee has represented the California Biomass Energy Alliance for over a decade and more recently also serves as its Executive Director. Julee holds a BA in Political Science from the University of California, Santa Barbara, and an MA in Government Studies from California State University, Sacramento.



Michael Boccadoro has worked extensively for more than forty years in public affairs and government relations. As Executive Director of the Agricultural Energy Consumers Association, Mr. Boccadoro is responsible for overseeing the association's regulatory and legislative affairs before the Public Utilities Commission, California Energy Commission, California Air Resources Board, and the California state Legislature. Mr. Boccadoro has been deeply engaged in California's climate, energy, and environmental policy debates on behalf of the state's agriculture industries. He has also been instrumental in the development of California's distributed-renewable energy programs related to bioenergy. Mr. Boccadoro received his B.A. in economics and political science from the University of California, Davis.



Mitch Sears is the Executive Officer of Valley Clean Energy (VCE) and was instrumental in launching VCE. He has contributed his depth of experience to VCE gained through nearly 28 years with the City of Davis serving in various staff and management roles. Most recently he served as the City's Sustainability Manager for over a decade, leading comprehensive efforts to address climate change, including implementation of community energy projects. Prior to that, he oversaw Davis's Agricultural Land Conservation Program, helping permanently preserve over a thousand acres of Yolo County farmland.



Dr. Matthew Summers leads the technical development and research operations of West Biofuels. Dr. Summers has managed the planning, engineering, and construction of the Woodland Biomass Research Center. He supervises numerous staff and contractors and all aspects of technology development of the West Biofuels advanced reforming system. Dr. Summers has many years of experience as a technical consultant on the engineering, economic and environmental performance of biomass-to-energy technologies. Dr. Summers earned a Ph.D. in Biological Systems Engineering from University of California, Davis and holds a M.S. in Mechanical Engineering from Stanford University. He is a recognized expert in energy conversion, holds several patents, and has authored numerous reports on the subject of biomass-to-energy development, biomass and synthesis gas conversion technologies, emissions controls, and engineering design.



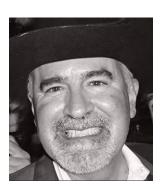
Wayne McFarland has spent the last 15 years in the field of renewable energy focused on finding solutions for converting biomass and other problematic global waste streams into carbon negative clean energy. His current focus is on how to deliver immediate solutions to some of the world's most troubling energy, environmental, economic, social and political problems. Wayne founded SynTech BioEnergy, LLC, with a mission to be a leader in meeting the challenge of climate change through delivering renewable, carbon negative clean energy and end-of-waste solutions on a global scale. Wayne's expertise in environmental law & policy, global manufacturing, renewable energy and retail energy markets, coupled with his inner drive to better the environment, has been fundamental to his leadership of SynTech. He now serves as Chairman and CEO of SynTech PCo, LLC, parent of all related SynTech entities. Prior to SynTech, he served as Managing Member, CEO and Chairman of Admiral Energy, LLC, and as Chairman, CEO and Managing Member of Native American Tribal Energy Company, LLC. Wayne holds a bachelor's degree in political science from Lewis University and a J.D. degree with honors from the IIT/Chicago Kent College of Law.



Vice Mayor Eric Guerra represents the southeastern part of the City of Sacramento, including the areas of Campus Commons, Tahoe Park and Little Saigon. Vice Mayor Guerra grew up a farm worker in rural yolo county the went on to become a proud Sacramento State Hornet, he graduated in 2003 with a BS in Electrical and Electronic Engineering and a MA in Public Policy and Administration in 2008. Prior to his election to the City Council in 2015, Councilman Guerra served as the Governor appointee to the California State University Board of Trustees, President of the Tahoe Park Neighborhood Association, Chairman of the Sacramento County Planning Commission, and has over fifteen years of experience in the California State Legislature in numerous roles. While serving as Councilmember, he has served as Chairman for the Sacramento Metro Air Quality Management District and for Regional County Sanitation District. In January 2023, he was appointed by Governor Gavin Newsom to represent the Sacramento Region Air Districts on the California Air Resources Board.



Dr. Somayeh Nassiri is a faculty member at the University of California Pavement Research Center (UCPRC). She is interested in pavement materials and structural design techniques to improve pavement sustainability. These strategies include using more sustainable materials and construction practices for long-lasting and durable pavements. Others are to improve pavement structural design for new and rehabilitation projects and to optimize repair jobs in terms of materials, timing, and construction to extend the life cycle of pavements, among others. Dr. Nassiri teaches courses on the materials, design, repair, rehabilitation, and management of asphalt and concrete pavements.



Evan W.R. Edgar has thirty-three years of experience in all aspects of solid waste management as a registered civil engineer. He is the Principal of Edgar & Associates, Inc., a lobbying firm and environmental engineering firm based in Sacramento and established in 1997. Mr. Edgar also cofounded the California Compost Quality Council and the California Compost Coalition, a statewide compost market development project and Lobbying Coalition, respectively. Mr. Edgar has advocated for green energy incentives, compost market development, greenhouse gas reductions policies, and practical regulations in front of legislative committees, regulatory agencies, and local commissions involving the collection, hauling, processing, and composting of urban green and yard wastes. Mr. Edgar has advised private industry companies, state and local government, and non-governmental organizations on recycling and organic waste project development issues including technical feasibility, collection options, land use compatibility, site design, operations, grant and loan funding, business development, and market development issues.



Greg Giguiere is no stranger to the Dunnigan Hills, he is the son of Karl and Vicki Giguiere and spent the first 10 years of his career grape farming here for R.H. Phillips and JK Vineyards. Greg then spent 8 years working in the vineyards of Oregon and Washington state. In 2017, Greg came home and rejoined the family business, bringing back all the secrets of the vineyards from the Pacific Northwest. Greg is a UC Davis Viticulture and Enology graduate and passionate about growing exceptional wine grapes. He is especially interested in conservation and is active on local conservation boards. When he is not out in the vineyards, Greg enjoys spending time with his family and four children, Declan, Aisling, Caitlin and Roslynn, in the great outdoors – camping, hiking, skiing and exploring the Mount Shasta region.



Dan Pronsolino is the General Manager at Cortina Hulling and Shelling, which owns and operates both Cortina Hulling and Shelling and Dunnigan Hills Hulling and Shelling.



Raymond Baltar is the Biochar Projects Manager and Director of the Sonoma Biochar Initiative at the Sonoma Ecology Center. He is a sustainability consultant, local businessman, and professional photographer is focused on integrating business principles with energy conservation and environmental sustainability. Mr. Baltar served on the Executive Committee of the Sierra Club, Redwood Chapter and on the Steering Committee for Solar Sonoma County. He completed a "Green MBA" graduate degree in Sustainable Enterprise from Dominican University in 2011.



Stuart Gilchrist is a Marysville City Council Member and Board Chair for the Feather River Air Quality Management District. Mr. Gilchrist is a 4th generation northern Californian, born and raised in Marysville in a family of working farmers. He is an artist, designer and small business owner and is engaged with his community by participating in many organizations and projects such as the South Yuba County Rotary, Yuba Water Agency's Education Center Development Steering Committee, City of Marysville Downtown Turnaround Pilot Program through SACOG, a Founding Member of Neighborhood Association of Chinatown. He also partnered with the City of Marysville's chosen Environmental Planner as designer of various parks and is a designer of two local interactive memorials through Yuba Sutter Regional Arts Council (The Arboga Assembly Center Japanese Internment Camp and Cotton Rosser Monument in Plaza Park).