Visit the ELAP Conference Page often to stay informed of the latest updates.

MAY 31 - JUNE 3, 2022

A rising tide lifts all boats

Raising the Tide

2022 ELAP Conference featuring CSEA

Check us out!

Environmental Laboratory Accreditation Program
STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA Water Boards

Jenn McClaren

Katlin Bloom

Message from the 2022 ELAP Conference Co-chairs

Last summer, ELAP held its inaugural conference which embodied its theme- Quality through Collaboration- by bringing together an often divided group of laboratory professionals and environmental regulators. After the overwhelmingly positive feedback received last year, we are excited to bring back this fully virtual, 100% free event again this year.

We landed on this year's conference theme- Raising the Tide- based on the aphorism "A Rising Tide Lifts All Boats", because it encompasses our goals for continuous improvement in a diverse laboratory industry. When laboratories do their best, it sets the bar for the rest, fostering a greater level of quality for environmental and public health data throughout the state.

ELAP has partnered with the California Society of Environmental Analysts (CSEA) to bring you programming on Day 1 that will include universally helpful topics to advance and highlight the work of analysts in the environmental laboratory industry. We are also very excited to bring you information on priority topics such as laboratory optimization, ethics and integrity, and TNI Documentation.

We are so grateful for this opportunity to join together with the laboratory community to celebrate the progress made in 2021 and inspire innovation for 2022.

Carolyn Ruttan
CSEA **PRESIDENT** & FOUNDER

Rachel Van Exel
CSEA VICE PRESIDENT
CO FOUNDER & TREASURER

Stacey Fry
CSEA SECRETARY

Katie Payne
CSEA BOARD DIRECTOR

Tony Francis, Ph.D.
CSEA BOARD DIRECTOR

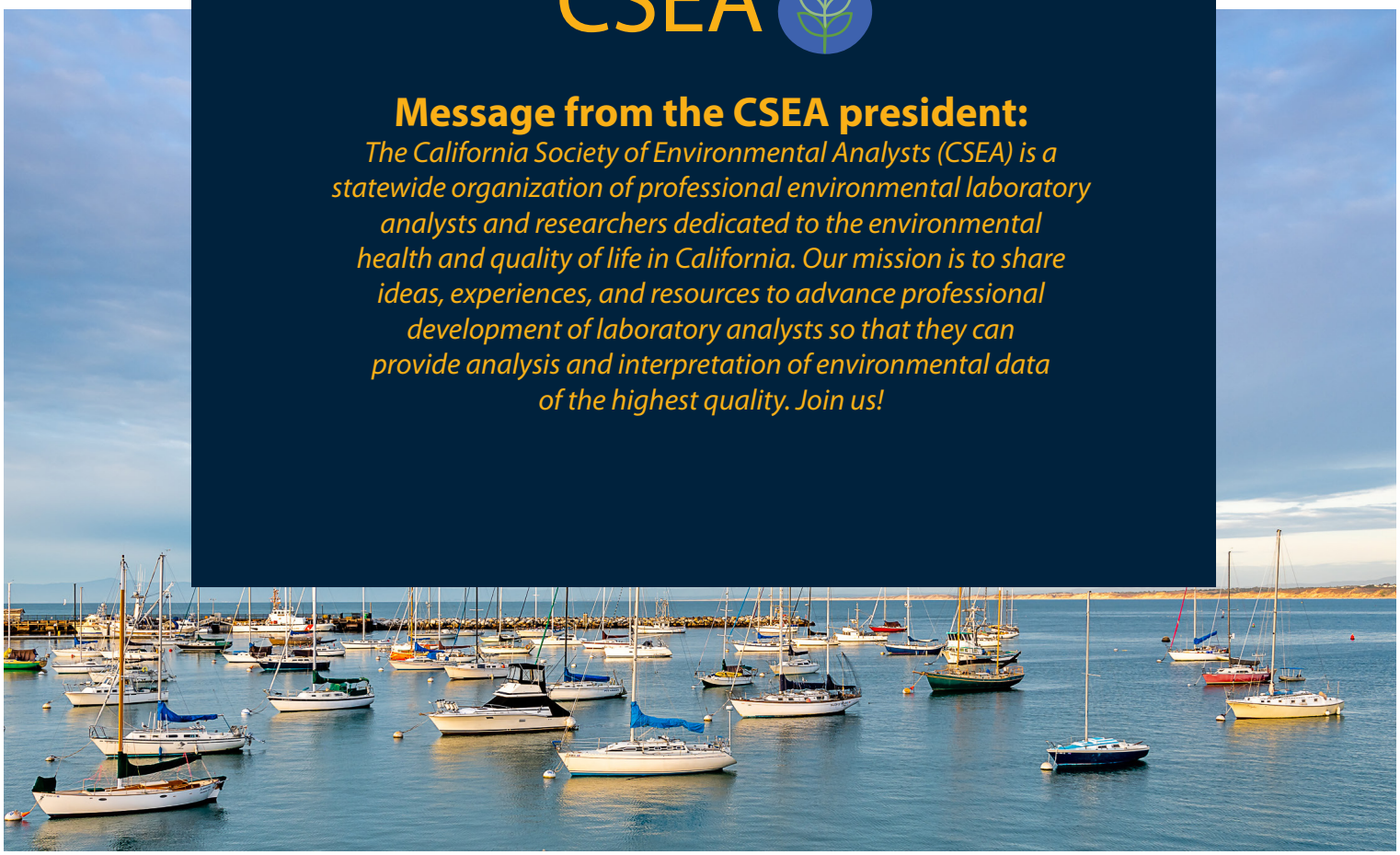
Robert Benz
CSEA BOARD DIRECTOR

Christine Sotelo
CSEA Ex-Oficio

CSEA

Message from the CSEA president:

The California Society of Environmental Analysts (CSEA) is a statewide organization of professional environmental laboratory analysts and researchers dedicated to the environmental health and quality of life in California. Our mission is to share ideas, experiences, and resources to advance professional development of laboratory analysts so that they can provide analysis and interpretation of environmental data of the highest quality. Join us!



2022 ELAP Conference Schedule

Tues
May 31
Providing tips, tricks, and tools to make your day-to-day work at the bench more efficient.

Set Sail with Laboratory Essentials by CSEA

9:00 - 9:10 am - - - - - - Welcome

9:10 - 9:25 am - - - - - **Keynote:** Captain Charles Moore

9:25 - 10:00 am - - - - **There and Back Again: A Tale of Environmental Testing Laboratories:** Allison Mackenzie

10:00 - 10:15 am - - - **CSEA Introductions and Annual Meeting:** Carolyn Ruttan

10:15 - 10:25 am - - - BREAK

10:25 - 10:45 am - - - **The Importance of Checklists:** Carolyn Ruttan

10:45 - 11:20 am - - - **Biochemical Oxygen Demand Tips and Tricks:** Stacey Fry

11:20 - 11:55 am - - - **Toxicity 101:** Katie Payne

11:55 am - 12:00 pm Closing words from the co-chairs

12:00 - 12:30 pm - - - Surprise Brown Bag Presentation

Wed
June 1
Work smarter, not harder. Today's sessions will get your lab running more efficiently and give you some valuable time back in your day.

Optimize Your Laboratory

9-9:05am - - - - - - - - - Welcome

9:05-10:00am - - - - - **Increase Productivity Using Lean 6 Sigma:** Dr. Rob Brogle

10:00-10:10am - - - - BREAK

10:10-11:15am - - - - - **Developing Partnership and Ownership to Improve your Lab:** Dr. Scott Hanton

11:15-11:55am - - - - - **Protect Your Laboratory from Cyber Security Threats:** Michael Gruenbaum and Murphy Altunel

11:55-12:00 pm - - - - Closing words from the co-chairs

12-12:30pm - - - - - - - Surprise Brown Bag Presentation

… Subject to change without notice …

2022 ELAP Conference Schedule

Thurs June 2

Hear from experts how to strengthen your armor against intentional laboratory fraud and unintentional misconduct. **Bonus: fulfill your annual ethics training requirement!**

Laboratory Ethics and Integrity

9-9:05am - - - - - - - - - Welcome

9:05-9:25 am- - - - - - - **Importance of Public Trust:** Kati Angarone

9:25-9:50am - - - - - - - **Laboratory Fraud:** Dr. Bruce Woods

9:50-10:25 am - - - - - **Cautionary Tales from ELAP's Enforcement Unit:** Naeem Ahmad & Leann Castle

10:25-10:35 am - - - - BREAK

10:35-11:25 am - - - - ***LABORATORY ETHICS TRAINING:*** Alexandria Turner

11:25-11:55 am - - - - **The Collapse of Theranos: A Whistleblower's Perspective on Medical Diagnostics Gone Wrong:** Erika Cheung

11:55 am-noon - - - - Closing words from the co-chairs

12:00-12:30 pm - - - - Surprise Brown Bag Presentation

Fri June 3

A2LA trainers provide a training on sticking points for California labs they observed during the past two years of training our community on the TNI standard. Don't miss this send-off session of the valuable TNI Documentation Workshop!

TNI Documentation Workshop: The Final Voyage

with A2LA Workplace Training's Michelle Wade

9:00-9:05 am - - - - - - Welcome

9:05-9:25 am - - - - - - **A Sailor's Stories:** Robert Brownwood

9:25-10:25 am- - - - - - **Session 1**

10:25-10:30 am - - - - BREAK

10:30-11:30 am - - - - **Session 2**

11:30-12:00 pm - - - - **Bon Voyage:** Christine Sotelo

12:00-12:30 pm - - - - Surprise Brown Bag Presentation

… Subject to change without notice …

2022 ELAP Conference Speakers

Naeem Ahmad

Naeem graduated from UC Davis with a BS in Biological Sciences. After graduating, he went to work for a large agricultural chemical company and played a critical role in improving and marketing a plant growth hormone. Naeem left the private sector and joined the Department of Pesticide Regulation, where he was responsible approving new pesticides before they could be used in CA. Naeem joined ELAP in 2016 and is responsible for several major enforcement actions.

Kati Angarone

Kati Angarone is the Associate Commissioner for Science and Policy at the Department of Environmental Protection. In this role she works to develop policy that is protective of New Jersey's environment and public health and to ensure policy cohesion across the Department in furtherance of the Department priorities, including climate, water and environmental health. The Office of Science & Policy includes, Division of Science & Research, which provides scientific support to programs across the Department, as well as other State agencies; and the Office of Environmental Public Health & Safety, which work closely with the New Jersey Department of Health to provide analysis and data for environmental public health issues.

Kati has worked at the Department for more than 20 years. Prior to assuming the role of Associate Commissioner, Kati spent many years assisting with the development of New Jersey's state land use policies including stormwater management, habitat protection, flood hazard area controls and protection of the Highlands region. She also spent several years at the Department focused on drinking water policy, including the adoption of new drinking water standards, prevention and management of harmful algal blooms and water supply emergency response.

Robert Brownwood

Robert Brownwood, Assitant Deputy Director with the Program Management Branch, Division of Drinking Water. Bob has been with the Drinking Water Program since 1989 when he started as a student assistant in Fresno. He has performed work in every district from San Diego to Redding. Robert took a ten year break from being a regulator and managed the City of Tulsa water system during that time – a transition from regulator to regulatee. Upon taking the Assistant Deputy Director position in 2016, he grew to appreciate Tulsa's organizational structure that included a full service TNI compliant laboratory. Throughout the process of developing California's ELAP regulations, Robert often reflected upon Tulsa lab director's aggressive adherance to precise laboratory practices and maintaining scientific integrity to obtain drinking water quality results. He also understood the need for the laboratory director to have a separte reporting structure to ensure unbiased and accurate water quality results -- even if those results turned into a drinking water violation for the City.

2022 ELAP Conference Speakers

Rob Brogle

After avoiding the real world as long as possible by remaining in school for a Ph.D. in physics, Rob realized at his first aerospace job that academia does not prepare one for developing processes needed to properly run a lab (or any other real-world operation). After clearly demonstrating his deficiencies to the organization that hired him, Rob was sent to learn Lean Six Sigma where he eventually became a Master Black Belt. Since then, he has applied this methodology in technology, finance, automotive, food production, health care, and state government. Recently, Rob developed the State of California government Lean Six Sigma program that has certified over 350 Green Belts, 40 Black Belts, and 6 Master Black Belts across the state. His latest project is to figure out how to turn the Sacramento Kings into an actual NBA basketball team, but so far has had no success.

Leann Castle

Leann Castle has been an Environmental Scientist for the ELAP Program Development, Research, and Enforcement Unit since 2021. She has assisted and played a key role in ELAP enforcement investigations of environmental laboratories. Leann regularly reviews referrals against laboratories and works with the PDREU Unit to enforce regulations established for the environmental laboratory community.

Prior to ELAP, Leann earned a Bachelor of Science in Marine Biology from the University of California, Santa Cruz. She began her career as the Hawaiian Monk Seal Biologist and Research Associate at the Waikiki Aquarium. In this role, Leann developed and maintained a successful program of care for a critically endangered species. Her collaborative work has been published in Integrative and Comparative Biology and the Journal of Experimental Biology.

Erika Cheung

Erika Cheung is the Executive Director of Ethics in Entrepreneurship, a non-profit organization with the mission to embed ethical questioning, culture, and systems in start-up ecosystems worldwide.

Erika began her career working as a medical researcher in the biotechnology industry and is most famously known for reporting the medical-diagnostic company Theranos to health regulators. The case has largely been covered in the media including the Wall Street Journal, 60 Minutes, HBO, ABC, American Greed, and a wealth of other outlets.

Erika went on to help launch a technology accelerator in Hong Kong supporting early-stage technology investments across the Asia-Pacific (APAC) region. She continues to advise and support the development of biotechnology and healthcare initiatives across the APAC region.

2022 ELAP Conference Speakers

Stacey Fry

Stacey received her Bachelor of Science (B.S.) degree in Biological Sciences from University of California, Riverside. She has 25 years of experience in the environmental industry, where she began her career as a bench chemist to her current position as Quality Assurance Manager for Babcock Laboratories, Inc. As QA Manager Stacey's duties include sustaining the Babcock Quality and Management Systems and maintaining all laboratory certifications.

Michael Gruenbaum

Michael Gruenbaum is a Control Systems Engineer and Project Manager with West Yost. Michael specializes in working with utilities to develop and implement SCADA Master Plans informed by cybersecurity. Through West Yost's partnership with AWWA, Michael has helped to develop various cybersecurity tools and training materials for the water sector. He has also conducted more than 75 cybersecurity risk and resilience assessments with water utilities and is helping utilities to address cybersecurity vulnerabilities and improve cybersecurity posture.

Scott Hanton

Scott Hanton is the Editorial Director of Lab Manager Magazine. He spent 30 years as an industrial chemist and business leader. He had roles of General Manager, Laboratory Operations Manager and Chief Scientist for Intertek Allentown. Previously had roles of research scientist, laboratory supervisor, and section manager at Air Products & Chemicals. Through these different roles, Scott developed expertise in analytical characterization, people leadership, and business management. He earned a BS in Chemistry from Michigan State University and a PhD in Physical Chemistry from the University of Wisconsin-Madison.

Scott is an active member of ACS, ASMS, and ALMA.

2022 ELAP Conference Speakers

Allison Mackenzie

Allison Mackenzie has worked in the environmental industry for more than forty years, gaining valuable experience in laboratory methods, quality control, lab management, and environmental regulation. After serving as President and CEO for twelve years, she is now the Executive Vice President of Regulatory Affairs for Babcock Laboratories, Inc. (Babcock Labs) in Riverside, CA. Her career as an environmental chemist began at Babcock Labs in 1978 following graduation from the University of California at Riverside, with a bachelor's degree in Biology with an emphasis in Chemistry.

Ms. Mackenzie has held many laboratory management positions and volunteered her time with numerous organizations—both community and professional. Ms. Mackenzie is passionate about two key issues—high ethical conduct in the environmental testing field and education in STEM. Throughout her professional career, she has promoted accreditation and ethical standards in the environmental laboratory. She serves on the Board of the American Council of Independent Laboratories (ACIL) and is currently Chair-elect. She is also an active member on the ACIL Business Practices and Government Relations Committees. She furthered the goal of improving lab accreditation in California by serving for four years on the Environmental Technical Advisory Committee (ELTAC). Her efforts to reform and revitalize the California Environmental Laboratory Accreditation Program (CA ELAP) have been recognized with three ACIL Preston Millar Awards.

Keynote Speaker: Captain Charles Moore

Captain Moore has been focused on bringing microplastics to the attention of the public for more than two decades. His landmark study on microplastics in the North Pacific Gyre, showing that for every kilo of plankton there are 6 kilos of plastics, has been widely read and cited throughout science publications and the media. He has presented to a wide variety of stakeholders and published numerous peer-reviewed papers to get the message out that microplastics are bad for the environment and are of concern for the health of marine organisms. He has been on such shows as the Osgood File, Late Night with David Letterman, The Colbert Report, Nightline, Discovery Channel Canada, 60 Minutes Australia, and Al Jazeera. He was engaged by the Encyclopedia Britannica to give the definition of plastic pollution for their online edition.

2022 ELAP Conference Speakers

Katie Payne

Katie Payne is an environmental scientist who has a passion for applying toxicology, biology, ecology, and chemistry to understand, navigate, and solve complex environmental issues. Over the course of her career in environmental laboratory services, she's held positions in bench-level testing, project management, quality assurance, operations management, and business development.

With more than a decade of experience in aquatic toxicity and bioassay at Enthalpy Analytical (formerly Nautilus Environmental) in San Diego, California, she has successfully managed a wide range of laboratory-based toxicity programs for commercial, industrial, and academic partners. She places strong emphasis on effective collaboration, developing clear goals and objectives and attaining them cost-effectively, using sound experimental design, achieving exceptional data quality, and gaining stakeholder and regulatory approval. Katie attended the University of San Diego and holds degrees in biology and economics.

Carolyn Ruttan

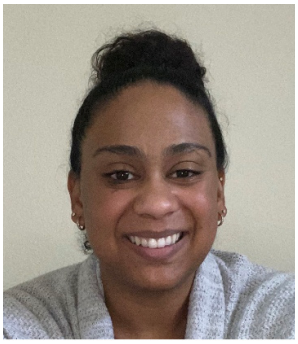
Carolyn is a scientist and Director of the Clear Lake Environmental Research Center (CLERC). CLERC's mission is to bring permanent science to the shores of Clear Lake in Lake County for scientific education and discovery, and solution to our water challenges.

She worked for Lake County Department of Water Resources for nine years looking after the health of Clear Lake, largest lake in California and oldest lake in the Americas. Carolyn now helps landowners realize their goals for environmental sustainability and in particular fire resilience after 68% Lake County has burned in the last four years. She established the only environmental laboratory in Lake County after realizing the need for such a service and familiarity with the academic laboratory environment. Carolyn was educated in England and the USA, obtaining BS Degrees in Biology and Manufacturing Engineering and MS Degrees in Technology of Crop Protection and Viticulture. Carolyn holds Pesticide Control Advisor and Qualified Applicator Licenses through the Department of Pesticide Regulation.

2022 ELAP Conference Speakers

Christine Sotelo

Christine Sotelo is the Chief of California's Environmental Laboratory Accreditation Program and has a worked in environmental and public health protection regulation for over 20 years. She has expertise in the areas of water quality monitoring and assessment; municipal storm water program permitting and auditing; water quality investigations and multi-agency enforcement actions; California Environmental Quality Act compliance, emergency response management, public participation, and environmental justice. Christine led the expert review of California ELAP in 2014 to implement transformational initiatives to improve several programmatic and stakeholder challenges to lead the program into the modern laboratory accreditation industry. Prior to taking charge of California ELAP, she managed California's Municipal Storm Water Program and advanced the state's regulation of storm water quality by developing rules and policies for protecting California waters. She's passionate about environmental protection having served as Board of Director for her local Watershed Council and is dedicated to advocating data of known and documented quality. She's a former Designated Official of California's Environmental Laboratory Technical Advisory Committee and serves as the current Ex Officio Board of Director for the California Society of Environmental Analysts and recently appointed alternate member for the California Division of Drinking Water on California's Water Quality Monitoring Council.



Alexandria Turner

Alexandria Turner holds a Master of Science degree in Forensic Science and Bachelor of Science degree in Forensic Biology with a Chemistry minor. She has nearly 10 years of experience working in, or with environmental testing laboratories. She is currently the supervisor for the Program Development Research and Enforcement unit for the Division of Drinking Water's Environmental Laboratory Accreditation Program (ELAP) and offers an array of knowledge from managing a Cannabis testing laboratory, helping write and enforce Cannabis testing laboratory regulations, chemical and bacteriological analytical skills, and enforcement inspection experience.

2022 ELAP Conference Speakers

Michelle Wade

Michelle joined A2LA Workplace Training in July of 2019. Her primary focus is consulting and training with ISO/IEC 17025 and TNI Accredited laboratories in the environmental industry. Michelle's background includes 12+ years as an assessor and Drinking Water Certification Officer working with both ISO and State accreditation bodies, field sampling, and analytical work in a corporate environmental laboratory. Michelle is the current chair of the TNI Chemistry Expert Committee, is a former member of Quality Systems Expert Committee, and ELAB. She routinely presents on topics in quality systems and best laboratory practices at laboratory conferences in multiple states.

Bruce Woods

Dr. Bruce Woods has been a chemist with the U.S. Environmental Protection Agency for over 30 years. For the last 17 years, he has worked for the EPA's Office of Inspector General, Office of Investigations, assisting Special Agents and Assistant U.S. Attorney's with investigating and prosecuting laboratory fraud cases across the country.

He began his career working in the EPA's Region 10 laboratory performing analyses using liquid and gas chromatography, and GC/MS techniques. Later in his career, he worked in the EPA Region 10 quality assurance unit. He was the EPA Region 10 representative to the NELAC conferences for approximately 10 years.