For almost a decade, SCAQMD has measured particulate levels directly in communities being impacted during wildfires using portable air monitors.

During the recent La Tuna fire in the Verdugo Hills area of Los Angeles County, SCAQMD deployed two portable particulate monitors – one to Hollywood Burbank Airport and another to the Angeles National Golf Course – to help assess air quality levels in smoke-impacted areas. The monitors fed information on PM2.5 levels into SCAQMD’s online air quality maps, providing residents in nearby neighborhoods with near-real-time air quality information.

This information, along with SCAQMD’s forecasting system and assessment of wind patterns, was also available to UCLA officials to help inform their planning for their September 3rd game at the Rose Bowl. UCLA was concerned about the air quality and its potential health effects on fans and athletes during the game.

In addition, SCAQMD was able to use its network of “low-cost” particulate sensors recently placed in San Bernardino County to immediately assess particulate levels when the Palmer fire erupted near Redlands a day after the La Tuna fire started.

Measurements from these portable monitors and “low-cost” sensors were a key element in the smoke advisories SCAQMD released to the public during the fires and is a good example of how the information they provide can complement SCAQMD’s overall air monitoring network.

Additional information on “low-cost” air quality sensors can be found at aqmd.gov/aq-spec.
Governor Jerry Brown signed two new laws that will help SCAQMD cut air pollution and promote clean air technologies in the South Coast basin. These were SCAQMD’s key legislative priorities in 2017.

The first, AB 1132, will enable air districts to more quickly address facilities that release hazardous emissions into the air that directly impact local communities. Before this law, the process often took weeks or months. The new process will allow the head of an air district to issue a temporary order for violations that present the threat of imminent and substantial endangerment to the public health or welfare, or the environment. The order would only last until the air district’s hearing board can hold a formal hearing to determine how to proceed.

The second bill signed into law, AB 1274, extends a Smog-Check exemption from six to eight years and collects a $50 fee in its place (which is slightly less than the cost to conduct a smog check for those two years). The bulk of these funds would go to the state’s Carl Moyer Program for targeted reductions of diesel particulate matter and nitrogen oxides from heavy-duty vehicles. Funds would also go to reduce toxic air pollution by providing incentive funding to private companies and public agencies to purchase cleaner-than-required engines, equipment, and emission reduction technologies. SCAQMD estimates that this bill would double the nearly $65 million generated through smog abatement fees per year for the Moyer Program.

These bills, and significant funding directed toward air quality from the state’s Greenhouse Gas Reduction Fund, are a major achievement for air quality. These would not have been accomplished without the support and leadership of state Senate President pro Tempore Kevin de León, Assembly Speaker Anthony Rendon, Senator Ricardo Lara, Assembly Members Cristina Garcia and Patrick O’Donnell, and Kip Lipper, the Senate leader’s Chief Environmental and Energy Advisor, whose help was invaluable.

Dr. William Burke Reappointed to SCAQMD Governing Board

SCAQMD Governing Board Chairman William A. Burke, Ed.D., has been reappointed to an unprecedented eighth term on the SCAQMD Governing Board by the Speaker of the California Assembly Anthony Rendon. Dr. Burke, a leader in environmental justice and other air quality programs, has served on the SCAQMD Board since 1993. Dr. Burke was originally appointed by then-Assembly Speaker Willie Brown and is the longest continuously serving appointee of former Speaker Brown and the only Brown appointee to any board still serving today.

During his service on SCAQMD’s Board, Burke has introduced and SCAQMD has carried out landmark programs for environmental justice, children and senior citizens. His new term will run from January 2018 to January 2022.
Many people enjoy cozying up next to a warm fire on a cold day, even in sunny Southern California. Yet, while wood fires may provide nostalgia and comfort, they also produce air pollution.

Although some might consider wood smoke “natural,” smoke caused by burning wood in fireplaces can emit more than five tons of harmful PM2.5 (fine particulate matter) emissions per day in the South Coast Air Basin—more than three times the amount of PM2.5 emitted from all of the power plants in the Southland. Particulate matter in the air can cause throat and eye irritation, aggravate asthma, and trigger other respiratory conditions.

Gas logs (whether you use natural gas or propane) emit less soot and other air pollution. As part of SCAQMD’s Check Before You Burn program, emission controls such as no-burn day restrictions from November to February are occasionally activated. To reduce wood smoke pollution, SCAQMD has implemented fireplace limitations for new home construction under Rule 445. Incentives are provided to encourage homeowners to replace their wood-burning fireplaces and stoves with natural gas models.

To check before you burn and see if a mandatory no-burn alert has been issued for your area, visit aqmd.gov/healthyhearth/chk-before-you-burn or call 1-(866)-966-3293.

Green Jobs on the Rise

In recent years, the green job market has expanded in California, becoming the most rapidly growing sector of the economy. According to the U.S. Bureau of Labor Statistics the green job sector includes Sustainability, Environmental Remediation (including air pollution management), Recycling, Water Conservation, Sustainable Forestry, and Advanced Energy (including Solar Power, Biofuels, Geothermal Energy, Wind Energy, Energy Auditing, and Electric Vehicles).

The 2016 California Advanced Energy Employment Survey, conducted by the Advanced Energy Economy Institute, estimates that there are over 500,000 jobs in the advanced energy industry alone, and that sector has grown by nearly 23% since 2016.

SCAQMD, a hub for green jobs, has been ramping up its hiring since the start of the year. SCAQMD recently hired 20 new air quality inspectors, as well as new groups of air quality engineers, chemists and lab technicians.

SCAQMD has been feeling the effect of what the Pew Research Center calls the “Silver Tsunami,” a mass wave of Baby Boomer retirements expected to hit state and local governments this decade. With this wave, SCAQMD has been able to provide a larger number of new and exciting job opportunities in recent years.

More information on careers in clean air and clean technology at SCAQMD can be found online, at aqmd.gov/careers.
Below is a description of each of the recipients of the 29th Annual Clean Air Awards:

**S. Roy Wilson Memorial Award for Leadership in Government**  
*Hon. Karen Bass, Member of Congress, 37th District of California*  
In her fourth term representing California’s 37th Congressional District, Congresswoman Karen Bass plays a leadership role in the Congressional Black Caucus. Earlier in her career, she served as the Speaker of the California State Assembly, the first African-American woman in this role. Partially stemming from her early years as a physician assistant, Representative Bass has long been a strong voice for the powerful policymaking nexus between clean air, public health, clean energy, and clean transportation infrastructure.

**Robert M. Zweig, M.D., Memorial Award**  
*Dr. Stanley Galant, M.D.*  
Dr. Galant is medical director of the Breathmobile, a mobile asthma treatment clinic for Children’s Hospital of Orange County (CHOC) where he oversees accessible healthcare services for asthma diagnosis, treatment, and education. He is also Clinical Professor of Pediatrics at the University of California, Irvine. Dr. Galant has served at CHOC since 1971, and is board-certified in pediatrics, as well as allergy and immunology. Dr. Galant is dedicated to educating pediatric residents and allergy/immunology fellows, as well as developing new diagnostic and therapeutic procedures for pediatric asthma, including culturally sensitive approaches and new tools to detect asthma in previously underserved populations.

**Awards for Clean Air Education and Outreach**  
*American Lung Association in California - Advocating for Lung Health*  
The American Lung Association is the state’s leading health organization dedicated to achieving a world free of lung disease. Their tools are education, advocacy, and research, all aimed toward the prevention and treatment of lung illness including lung cancer, asthma, and chronic obstructive pulmonary disease (COPD). The organization maintains a strong and active social media and online presence to inform the public about a variety of strategies to protect personal lung health, and promote breathable air as a critical public health resource.

**Carson High School - Annual Alternative Energy Car Show**  
The students of Carson High School’s Environmental Science Engineering & Technology (ESET) program develop and host an Alternative Energy Car Show as both an educational and outreach effort that reaches approximately 1,500 students and faculty each year. Carson High School is in the Los Angeles Unified School District. The event, held annually during Earth Week, offers students an up-close look at a range of near-zero and zero-emission vehicles, as well as information on ‘green’ auto technology careers that await successful graduates. The car show and educational program provides students real-life roles in project management, including learning about technology, engineering, and environmental impacts of clean vehicles from a first-hand perspective.

**Awards for Innovative Clean Air Technology**  
*BYD America - Rechargeable Battery Technology for Heavy-duty Vehicles*  
BYD America is a global leader in cutting-edge rechargeable battery technology and is a principal participant in the SCAQMD-led Zero-Emission Drayage Truck Project, the first large-scale demonstration of battery-electric Class 8 drayage trucks, in collaboration with CARB and California’s five largest air districts. As a project fleet partner, BYD is contributing key engineering resources and manufacturing capabilities. The demonstration is an unprecedented collaboration to accelerate commercial availability of multiple zero-emission technologies related to moving freight to and from the Ports of Los Angeles and Long Beach. BYD’s 600 employees in Los Angeles County also make state-of-the-art electric transit buses, LED lighting systems, and power storage systems.

**Chevrolet - 2017 All-Electric ‘Bolt’ Passenger Vehicle**  
The 2017 Chevy Bolt EV is the first affordable, all-electric vehicle to achieve a U.S. EPA-estimated 238 miles of range. The MSRP for Bolt EV is $37,495 before government tax credits and rebate incentives. The production Bolt EV was unveiled in January 2016 and cars were first delivered to customers in California in December 2016. The Bolt EV is now available nationwide. The vehicle’s impressive range and affordability (especially after accounting for existing incentives and rebate programs) offer great potential to expand the electric vehicle market to a broader consumer base. Compared to the average new U.S. vehicle, the Bolt EV can save owners an estimated $9,600 in fuel costs over a five-year span.
Southern California Edison, GE Power and Wellhead Power Solutions - World’s first Hybrid Enhanced Gas Turbine (Hybrid EGT)

Southern California Edison’s (SCE) two Hybrid Enhanced Gas Turbine facilities add batteries and a new control system to traditional peaker power plants. SCE is the first utility in the country to integrate GE Power’s existing gas-turbine power generation with battery energy storage in a dynamic new hybrid system, achieving heightened grid efficiency not as a demonstration, but in fulltime service. This innovative technology installation, in partnership with GE and Wellhead Power Solutions, offers potential for other urban areas to achieve more reliable, economically competitive, and environmentally sustainable electricity systems—as there are more than a thousand gas turbines in operation around the world that could be similarly hybridized.

Awards for Model Community Achievement

City of South Pasadena - Certification as Nation’s First AGZA Green Zone® City

In September 2016, the city of South Pasadena capped a three-year effort toward achieving zero-emission operations in municipal landscaping care, earning official certification from the American Green Zone Alliance (AGZA) as the first AGZA Green Zone® City in the nation. The achievement required collaboration among the City’s Community Services and Public Works Department staff, LandCare (the City’s contracted landscape management company), AGZA, and SCAQMD staff. The City’s AGZA Green Zone® certification recognizes 41 total acres—including public parks, medians, and other public green space—where only zero-emission, electric-powered, low-noise maintenance equipment is used. AGZA estimates that the use of clean maintenance equipment will cut about 31 tons of pollutants annually.

San Bernardino County Transportation Authority - ‘Near-Zero-Emission’ CNG Tow Trucks for Freeway Service Patrol

San Bernardino County Transportation Authority’s (SBCTA’s) freeway service patrol is a congestion mitigation program managed in cooperation with CHP and Caltrans. Its roving team of tow trucks travel on selected routes on the I-10 and I-15 freeway corridors during peak weekday commute hours to provide no-cost assistance or towing to motorists. By reducing congestion, the service also reduces fuel consumption and exhaust emissions caused by traffic. Beginning in 2014, SBCTA was the first agency in California to use near-zero-NOx CNG tow trucks to gain further air quality benefits. The patrol service also ranked among the highest in the state for quantified benefit-to-cost ratio in terms of reduced hours of motorist delay, fuel consumption, and air pollutant emissions.

IVAN - Clean Air Education Outreach

The IVAN (Identifying Violations Affecting Neighborhoods) air monitoring network is the latest environmental justice tool developed at Comite Civico Del Valle. IVAN is a community sensor network designed using scientific and federal siting methods. The network is the result of a $2 million grant from the National Institute’s of Health in partnership with Public Health Institute’s Environmental Health Tracking Program. IVAN is the largest community-based air network of its kind in the U.S. The community-led air network involves community members conducting monitoring, siting, and data collection. Since IVAN was deployed, it has helped air pollution districts identify additional emissions sources, resulting in reduction of air contaminants and deterring violations.

Award for Business Leadership in Air Quality

Kelly Vlahakis-Hanks - President and CEO, Earth Friendly Products

Kelly Vlahakis-Hanks serves as President and CEO of Earth Friendly Products (EFP), a leading ‘green’ cleaning products in the city of Cypress in north Orange County. EFP makes ECOS™ Laundry Detergent and over 200 other cleaners for household and commercial use. Ms. Vlahakis-Hanks has made EFP a model for greening American business and has been recognized for her influential voice in the green movement and corporate social responsibility. EFP has been recognized twice as a Partner of the Year under U.S. EPA’s Safer Choice ingredient labeling program.

Award for Youth Leadership in Air Quality

Nalleli Cobo - Grassroots Advocacy for Environmental Justice

Nalleli Cobo is a 16-year-old student and resident of the University Park neighborhood of South Los Angeles, who has become an experienced grassroots advocate for community health and environmental justice. At 9 years of age, Nalleli began experiencing medical issues including severe asthma. By the time she turned 12 years old, she’d become concerned about poor air quality conditions around her home and school, which included exposure to noxious odors and emissions from nearby urban oil field operations. She helped mobilize neighbors to challenge responsible agencies—including SCAQMD—to act on their air quality concerns. This enhanced community engagement led to growing responses by multiple public authorities. In turn, these efforts resulted in meaningful actions: settlement agreements for multiple public nuisance lawsuits and stronger legal restrictions against future releases of air contaminants.
SCAQMD has been awarded two federal grants of $2.5 million each under the U.S. EPA's 2016 Targeted Air Shed Grant Program. The grants are intended to reduce ozone and PM2.5 air pollution in areas of the South Coast Air Basin with the highest levels of exposure.

The first grant will be used to replace older commercial lawn and garden equipment with zero emission, battery-electric commercial grade models in environmental justice areas. On October 6, 2017, the SCAQMD's Governing Board approved a Program Announcement to solicit proposals from manufacturers and suppliers of zero emission, battery-electric commercial grade lawn and garden equipment for participation in this program. Starting in spring of 2018, local governmental agencies, school districts, commercial gardeners and non-profits will be invited to replace their most polluting equipment, such as chain saws, leaf blowers, lawn mowers and trimmers.

The second grant will be used to replace up to 16 liquefied petroleum gas or diesel-fueled yard tractors with electric models at the San Pedro Bay Ports. This project will demonstrate the technology’s ability to support demanding cargo handling operations and is expected to promote the market acceptance of zero emission cargo handling equipment at the San Pedro Bay Ports.

SCAQMD Hosts Major Conference on Air Quality Sensors

SCAQMD hosted an international conference on September 27-28 that brought together experts from various fields to learn about, and share new information on, air quality sensors.

The “Making Sense of Sensors” conference, held at SCAQMD’s Diamond Bar headquarters, was a joint effort between SCAQMD, Bay Area Air Quality Management District and the California Air Pollution Control Officers Association. Topics discussed included: the current state of sensor technology; sensor network development; sensor data validation, analysis, and visualization; and community perspectives and expectations.

The conference also featured keynote addresses from experts such as Kourosh Karmikhany, the General Manager of the crowdsourced “Weather Underground” website and Dean Bethke, the business development lead on the “Internet of Things” for Microsoft. Karmikhany spoke to attendees about incorporating air quality sensor data into their existing weather applications, while Bethke discussed his role in the data sharing revolution through the internet.

In addition to the keynote addresses, platform and poster presentations and exhibits were also on display. These sought to equip the attendees with current knowledge of air quality sensors and informed the public about the cost, benefits and tradeoffs of lower-cost sensors. Participants represented governmental agencies, private companies, community groups, and research institutions from across the nation and around the world including China, Taiwan, India, Canada and Finland. Many attendees actively networked at an evening reception and took special tours of the SCAQMD laboratory including the exclusive AQ-SPEC chamber testing system.
Six Chemists Join SCAQMD Lab

SCAQMD has hired dozens of new employees in the past year including engineers, inspectors, and recently, six new chemists to work in the laboratory. Due to retirements and promotions the SCAQMD laboratory had a need to fill these chemist openings.

The six new chemists, who went through a rigorous SCAQMD application process, hail from schools locally and across the country, including University of California, Irvine (UCI), University of California, San Diego (UCSD), Cal State Fullerton, and Massachusetts Institute of Technology (MIT).

“The lab here is very different—it has windows,” quipped Ali Rahni, one of the six, in reference to traditionally drab laboratory settings. “But career advancement is also another big reason why people, including myself, [come to SCAQMD].”

The new chemists have different responsibilities, but they all work towards the same goal: improving the quality of life for residents living in the South Coast Air Basin.

“I wanted to do something with air quality,” said fellow chemist Matthew Louie. “SCAQMD [has] the largest lab for [air quality] in Southern California, so I knew I had to check it out.”

Each of the new chemists is passionate about staying in the field of air quality, and recognizes its global importance.

“I was interested in doing something applied,” said another new chemist Paige Aiona. “Air quality is not only a regional issue, it’s something that impacts people worldwide.”

Information Management Gets New ADEO

Ron Moskowitz is SCAQMD’s new Assistant Deputy Executive Officer for Information Management. He leads a team of over 45 employees, plus a dozen or so contractors, who are responsible for the information technology services for the agency.

Integral to SCAQMD, Information Management is responsible for data center servers, networks, desktop computers, laptops, cell phones, public records, and for the development and deployment of customized automated systems. Ron and his team of experts are virtually “attached to every employee because everyone needs technology to do their jobs,” he said. Right away, Ron observed that SCAQMD is seemingly “like a little city.” Even though the agency has a single focus, it has many types of departments and functions, including scientific, legal, planning, public affairs, administrative, and many others. He is keenly aware of the importance of his team to be constantly up to date, since technology is “changing every nanosecond.”

Ron came to SCAQMD with nearly thirty years in the information technology field, which included executive level positions in the public and private sectors. Before joining SCAQMD, he was the Chief Information Officer for the Los Angeles County Treasurer and Tax Collector.

He was “inspired by SCAQMD’s mission in repairing the world.” Early on, he identified two things about working for SCAQMD that helped foster a better work-life balance for Ron and his family—not commuting 3-4 hours a day to downtown Los Angeles and having Mondays off due to the agency’s 4/10 work schedule.

Born in Anaheim, he has lived most of his life in Orange County. For the past several years, he has enjoyed being a part of the community in Placentia with his wife, Heather, and their 6-year-old son, Alexander. One of Ron’s passions is music. He grew up attending school with Gwen Stefani, and used to be in a few bands himself, but these days he prefers to perform for his #1 favorite fan, his own son.

SCAQMD to Update Building Infrastructure to Improve Sustainability and Energy Efficiency

Last year, the California Energy Commission (CEC) put out a call for proposals to further the use of renewable energy and improve efficiency within existing buildings. Proposals, in part, had to reduce the environmental and health impacts of electricity production and use pre-commercial technologies. In response, two firms, Advanced Microgrid Solutions (AMS) and Willdan, submitted separate proposals with both utilizing SCAQMD’s headquarters as a demonstration site.

Both projects were subsequently awarded CEC grants. The AMS project will expand SCAQMD’s existing solar generation to include the latest photovoltaics, smart inverters, energy storage and advanced energy forecasting. The Willdan project will improve the energy efficiency of SCAQMD’s headquarters building by over 20% through the implementation of pre-commercial efficiency technologies which include new chillers, advanced LED lighting, and new laboratory fume hoods.

Since SCAQMD’s headquarters was opened in 1993, it has not been updated to incorporate the latest energy-efficient technologies or onsite power management, making the site a good candidate for the project. Improving the efficiency of SCAQMD’s headquarters, adding additional onsite solar generation, and improving energy load shifting through battery storage and energy management will significantly reduce emissions associated with power generation and will save over $300,000 a year on SCAQMD’s utility costs.

These projects will also include advanced technology demonstrations that use high efficiency solar panels to power LED lighting with direct current, a 750 kW battery storage system to provide an uninterruptible power supply to protect sensitive equipment in the event of laboratory power outages or spikes, and chillers that use a new non-stratospheric ozone depleting or global warming refrigerant.
Rule 403 – Dust Control in the South Coast Air Basin Training
• Every third Wednesday of the month: January through November.
This class is held at SCAQMD's Diamond Bar Headquarters from 8:30 a.m. to 11:30 a.m. There is no fee. Pre-registration is required and walk-in registrations are not allowed. No classes are held in December.
Visit aqmd.gov/home/programs/business/training-403-403-1-fugitive-dust (and click on "south coast" near the top of the page) for class and registration information. To register, e-mail dustcontrol@aqmd.gov or call toll-free 1-866-861-3878.

Rule 403 & 403.1 – Dust Control in the Coachella Valley Training
• Every third Thursday of the month: January through November.
This course is held from 1:00 p.m. to 4:30 p.m. at the Coachella Valley Association of Governments, Room 115, 73-710 Fred Waring Dr., Palm Desert, CA, 92260. There is no fee. Pre-registration is required and walk-in registrations are not allowed.
Visit aqmd.gov/home/programs/business/training-403-403-1-fugitive-dust (and click on "coachella valley" near the top of the page) for class and registration information. To register, email dustcontrol@aqmd.gov or call toll-free 1-866-861-3787.

Rule 1403 – Asbestos Demolition and Renovation Compliance Training
• December 13, 2017
Classes are held at SCAQMD’s Diamond Bar Headquarters from 8:00 a.m. to 1:00 p.m. Registration fee is $83.39 per person. Enrollment is limited. Pre-registration is required and walk-in registrations are not allowed.
Visit aqmd.gov/home/programs/business/training-1403-asbestos-demolition for class and registration information. Contact Sharon Fujimoto at sfujimoto@aqmd.gov or call (909) 396-2183 for more information and to register.

Rule 1469 – Compliance Assistance: Mandatory Hexavalent Chromium Training Certification
• January 25, 2018

- February 22, 2018
- March 29, 2018
- April 26, 2018
- May 17, 2018 (Spanish-Only Class)
Classes are held at SCAQMD’s Diamond Bar Headquarters in Room CC6 from 1:00 p.m. to 4:00 p.m. each day. Registration fee is $33.95 per person. Enrollment is limited. Pre-registration is required and walk-in registrations are not allowed.
Visit aqmd.gov/home/programs/business/training-1469-hexavalent-chromium for class and registration information. Contact Sharon Fujimoto via email at sfujimoto@aqmd.gov or call (909) 396-2183 for more information and to register.

Rule 2202 - Employee Transportation Coordinator (ETC) Training
• November 9, SCAQMD Headquarters, Diamond Bar
• November 30, Marriott Hotel, Riverside
• December 13, SCAQMD Headquarters, Diamond Bar
Classes are held from 8:00 a.m. to 5:00 p.m. each day. Registration fee is $172.97 per person. Enrollment is limited. Pre-registration is required and walk-in registrations are not allowed.
Visit aqmd.gov/home/programs/business/training-2202-etc for class and registration information. To register, e-mail etctraining@aqmd.gov or call (909) 396-2777.

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