



UC San Diego

March 20 - 21, 2019 | California State University, Sacramento

PROGRAM GUIDE



WILDFIRE
TECHNOLOGY
INNOVATION SUMMIT

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Welcome!

Welcome to Sacramento and the State of California's first Wildfire Technology Innovation Summit. We are here to examine new approaches to preventing, combatting and mitigating wildfires. The Summit is designed to dramatically shift how we address the expanding climate-change challenges of drought, dry winds and vegetation. It's important that you are here.

As recent fire seasons have demonstrated, effective wildfire prevention and management will require all of us working together with a common goal of saving lives, landscapes and structures. We have invited a broad cross-section of speakers, including practitioners from Australia and Canada, innovators from the technology sector and academics who have been studying the science surrounding wildfires to kickstart what will be a dynamic and iterative plan of action.

Building on the efforts that have already begun by the participants here today, we hope that the dialogue at this Summit will generate new ideas for systems and tools for use by government responders, technology innovators and scientific researchers in the entire wildfire arena. The sessions from this event will be recorded and posted on the website: www.wildfiretechsummit.cpuc.ca.gov. Please continue to look for updates to this site.

California has long been a global leader in technology innovation and we must work together to devise the tools we need to get ahead of this issue. We are excited about this convening, and hope that the discussions will spur further collaboration beyond the Summit.

Sincerely,

The Steering Committee
Wildfire Technology Innovation Summit



Agenda

DAY ONE: Wednesday, March 20, 2019

- 7:30 – 8:30 a.m. **Registration and Continental Breakfast** University Union Ballroom Foyer
- 8:30 – 9:00 a.m. **Welcome/Opening Remarks** University Union Ballroom
Alice Stebbins, Executive Director, CPUC
Honorable Bill Dodd, California Senate District 3
- 9:00 – 9:40 a.m. **How Wildfires Will Shape Our Future** University Union Ballroom
Ed Struzik, Author of Firestorm and Fellow, Institute for Energy and
Environmental Policy, Queen’s University in Kingston, Canada
- 9:40 – 10:00 a.m. **Climate Trends in California and Fire Risk** University Union Ballroom
David Pierce, Climate Scientist, Scripps Institution of Oceanography
- 10:00 – 10:40 a.m. **OPENING PANEL 1** University Union Ballroom
Operational Experience of the Last Two Fire Seasons
Intro remarks
Jeff Johnson, Fire Chief and CEO, Western Fire Chiefs Association
Panelists
Chief Thom Porter, Director, CAL FIRE
Mark Ghilarducci, Director, Cal OES
Michael Picker, President, CPUC
- 10:40 – 12:00 p.m. **OPENING PANEL 2** University Union Ballroom
Lessons Learned in San Diego
Intro remarks
Caroline Winn, Chief Operating Officer, SDG&E
Moderator
Jessica Block, Assistant Director of WIFIRE Lab, Qualcomm Institute,
UC San Diego
Panelists
Tony Mecham, San Diego Unit Chief, CAL FIRE
Brian D’Agostino, Director of Fire Science & Climate Adaptation, SDG&E
Graham Kent, Director, Nevada Seismological Lab, University of Nevada-Reno
Skyler Ditchfield, CEO, Geolinks
- 12:00 – 12:30 p.m. **Break**
- 12:30 – 1:30 p.m. **Lunch** University Union Ballroom

1:45 – 5:00 p.m. BREAKOUT SESSIONS: TRACK 1

**Understanding Wildfire Potential:
Forecasting Threat and Modeling Behavior University Union Ballroom**

1:45 – 2:15 p.m. Lightning Presentations (15 minutes each)
Producing Wildfire Weather and Fuel Moisture on a Grid
Scott Capps, Founder and Principal, Atmospheric Data Solutions
The California and Nevada Smoke and Air Committee
Modeling on Demand for Fire Response
Dave Sapsis, CAL FIRE

2:15 – 3:15 p.m. PANEL 1A
Forecasting Wildfire Potential: How do we assess fire threat potential?
Discussion of fire prediction science and enabling technology
Moderator
Tom Rolinski, Fire Weather Meteorologist, SCE
Panelists
Steve Vanderburg, Principal Meteorologist, SDG&E
Mary Glackin, Director, Science and Forecast Operations, IBM
Craig Clements, Associate Professor of Meteorology, San Jose State University
Matt Jolly, United States Forest Service

3:15 – 3:30 p.m. Break

3:30 – 4:00 p.m. Lightning Presentations (10 minutes each)
On Demand Operational Coupled Weather and Fire Modeling
Adam Kochanski, Assistant Research Professor, Atmospheric Sciences, University of Utah
Enabling Wildfire Risk Forecasting: Key Challenges & Lessons Learned
David Buckley, Vice President, Technosylva
Creating the Next Generation Disaster Intelligence Cyberinfrastructure through Data and Artificial Intelligence
Ilkay Altintas, Director WIFIRE Lab and Chief Data Science Officer, San Diego Supercomputer Center, UC San Diego

4:00 – 5:00 p.m. PANEL 1B
Data Driven Fire Modeling: How can we develop fast and reliable fire modeling tools to support all fire departments and emergency responders across the state?
Moderator
Jessica Block, Assistant Director of WIFIRE Lab, Qualcomm Institute, UC San Diego

Agenda

4:00 – 5:00 p.m.

PANEL 1B (cont.)

Panelists

Ralph Terrazas, Fire Chief, Los Angeles Fire Department

Adam Kochanski, Assistant Research Professor, Atmospheric Sciences, University of Utah

Joaquin Ramirez, Founder, President & CEO, Technosylva

Ilkay Altintas, Chief Data Science Officer, San Diego Supercomputer Center, UC San Diego

1:45 – 5:00 p.m.

BREAKOUT SESSIONS: TRACK 2

Where is the Fire? Improving Situational Awareness and Alerts. Redwood Room

1:45 – 2:15 p.m.

Lightning Presentations (15 minutes each)

Using Satellites and Advanced Analytics to Track Fires

Clyde Wheeler, Applied Scientist, Descartes Labs

The Utility Collective: Sharing Data, Algorithms, & Machine Learning Insights

Jeff Pauska, Business Strategy, Hitachi Consulting

Leonard Lee, Founder and COO, Dispatchr

2:15 – 3:15 p.m.

PANEL 2A

Using Signals Intelligence for Wildfire Threat Detection, Analysis, and Response

Moderator

John Horel, Chair, Department of Atmospheric Sciences, University of Utah

Panelists

Phillip SeLegue, Battalion Chief - Intelligence, CAL FIRE

Brian Marshall, Fire Chief, Cal OES

Mahesh Prakash, Senior Principal Research Scientist, CSIRO Data61

Nicole Hu, CTO, One Concern

3:15 – 3:30 p.m.

Break

3:30 – 4:00 p.m.

Lightning Presentations (15 minutes each)

Using Data to Inform Operational Decision-making

Rich Drozen, Operations Chief, CAL FIRE

Integration 2.0: Using AI/ML to Save the Whole Community

Vance Taylor, Office of AFN, Cal OES

4:00 – 5:00 p.m.

PANEL 2B

Understanding the Situation: Using technology to improve operational decision-making and execute effective evacuations. discuss needs and solutions for making information available to first responders and the public

Moderator

Caroline Thomas Jacobs, Cal OES

Panelists

Brian Woodbeck, Deputy Chief, Cal OES

Dave Winnacker, Fire Chief, Moraga-Orinda Fire District

Geoff Berlin, Office of Standard and Effectiveness,
U.S. Department of Homeland Security

Kate Dargan, Co-Founder, Intterra

5:00 – 6:30 p.m.

Networking Reception University Union Ballroom

Remarks from Honorable Henry Stern, California Senate District 27

Agenda

DAY TWO: Thursday, March 21, 2019

7:30 – 8:30 a.m. **Registration and Continental Breakfast** University Union Ballroom Foyer

8:30 – 9:00 a.m. **Bringing Together Policy and Technology Innovation to Make Our Communities More Resilient** University Union Ballroom
William Craig Fugate, One Concern, FEMA Administrator (2009-17)

9:00 – 9:30 a.m. **Florida: Designing the Grid for Resilience** University Union Ballroom
Manuel Miranda, Senior Vice President, Power Delivery, Florida Power & Light

9:30 – 10:00 a.m. **Australia: Quantifying and Managing the Bush Fire-related Risks Posed by Power Lines** University Union Ballroom
Simon Dunstall, Research Director, Decision Sciences Program, Data61, the Commonwealth Scientific and Industrial Research Organization (Australia)

10:00 – 10:20 a.m. **Texas: Power Line-caused Wildfire Mitigation** University Union Ballroom
B. Don Russell, Regents Professor and Director, Power System Automation Laboratory, Texas A&M University

10:20 – 10:30 a.m. **Break**

10:30 – 3:15 p.m. **BREAKOUT SESSIONS: TRACK 3**
Turning Data into Information: Best Practices in Data Gathering and Analytics for Utilities. University Union Ballroom

10:30 – 11:00 a.m. **Lightning Presentations** (15 minutes each)
Geo-Intelligence and Asset Integrity
Tony Palazzi, Regional Service Line Manager, Power Americas, FUGRO (Australia)

The Future of Aerial Resources
Andrew Mills, President, Erickson Commercial Group

11:00 – 12:00 p.m. **PANEL 3A**
Aerial Patrols - Best Practices in Data Gathering & Analysis for Utility Vegetation Management and Asset Integrity
Moderator
Matthew Rommel, Commercial Market Leader, US Drone Service, Deloitte
Panelists
Chuck Anderson, Executive Vice President and Chief Strategy Officer, ECI
Jeff Filip, General Manager and Co-Founder, Intelfuse (Australia)
Kerry Fleming, Air Traffic Security, Federal Aviation Administration
Tom Fries, Aviation Services Manager, SDG&E

Agenda

- 12:00 – 12:30 p.m. **Break**
- 12:30 – 1:30 p.m. **Lunch**
- 1:45 – 2:15 p.m. **Lightning Presentations** (15 minutes each)
An Integrated Approach to Wildfire Risk Analytics Using LiDAR, GIS & Structural Modeling
Karamvir Singh, Head of Product & Strategy, Power Lines Pro (Australia)
- In the Field: Leveraging AI and Big Data Solutions for Risk-Based Asset & Vegetation Management**
San Gunawardana, CEO, Enviro
Steve Liebelt, Stanford Linear Accelerator Center (SLAC)
- 2:15 – 3:15 p.m. **PANEL 3B**
Big Data, Advanced Analytics and Machine Learning
Moderator
San Gunawardana, CEO, Enviro
- Panelists**
Ralph Garvin, Founder and CEO, Dispatchr
Ajay Madwesh, Advanced Analytics Enablement/Cognitive Advantage, Deloitte
Sumeet Singh, VP Wildfire Community Safety Program, PG&E
Danjel Bout, Program Manager, Utility Cyber Security Branch, CPUC

10:30 – 3:15 p.m. BREAKOUT SESSIONS: TRACK 4
Preventing Ignition from Utility Infrastructure Redwood Room

- 10:30 – 11:00 a.m. **Lightning Presentations** (15 minutes each)
Using Smart Meter Data and Analytics to Detect Live Wires Down
Jim Cherrie, Director of Grid Operations, SCE
- Innovation in Sensor Technology**
Tero Heinonen, CEO, AWARE
- 11:00 – 12:00 p.m. **PANEL 4A**
Technology Innovations to Reduce Wildfire Risk
Moderator
David Erne, Supervisor, Energy Systems Research Office, CEC
- Panelists**
James Keener, CEO, Sentient Energy
David Myers, VP Feeder Automation, S&C Electric Company
Tom Bialek, Chief Engineer, SDG&E
Alan Wong, CEO of IND Technology, Professor at RMIT University (Australia)
- 12:00 – 12:30 p.m. **Break**

Agenda

12:30 – 1:30 p.m. **Lunch** University Union Ballroom

1:45 – 2:15 p.m. **Lightning Presentations** (15 minutes each)
Pre-treating Utility Right-of-Ways as to Prevent Ignitions and Lessen Damages
Ron Raley & Scott Holmquist, Perimeter Solutions
Fighting Wildfires with Big Data and AI - Utility Vegetation Management Application
Hendrik F. Hamann, Research Manager for Physical Analytics, IBM

2:15 – 3:15 p.m. **PANEL 4B**
Rethinking Utility Vegetation Management: Building Risk-Based and Performance Driven Programs
Moderator
Jack McCabe, Vice President & General Manager at Davey Resource Group
Panelists
David Marvin, PhD, Co-founder & CEO, Salo Sciences
Tom Martin, Managing Director of Product Management, Energy & Utilities, TROVE
John Goodfellow, Principal Consultant, Biocompliance Consulting Inc.
Mike Wilson, Utility Wildfire Mitigation Expert, CAL FIRE

3:30 – 5:00 p.m. CLOSING SESSION..... University Union Ballroom

3:30 – 3:45 p.m. **How New Technologies and NGOs Are Redefining Global Resilience, Response and Recovery: Lessons Learned from the Front Lines of Humanitarian Aid**
Chris Wilch, Solutions Specialist, Data Analytics and Artificial Intelligence, Enterprise Services, Microsoft Corporation
Jason Parks, Chief Information Security Officer, Contra Costa County

3:45 – 4:00 p.m. **Best Practices in Building Public-private Collaboratives to Develop Broadly Supported Solutions**
Julie Leimbach, Facilitator and Director, Kearns & West

4:00 – 5:00 p.m. **CLOSING PANEL**
The Path Forward: Incorporating Technology Innovation into Policy
Moderator
Amy Tong, Director of California Department of Technology and State Chief Information Officer

Panelists
Michael Picker, President, CPUC
John Simmins, Technical Executive, Electric Power Research Institute
Franco Amalfi, Director of Strategy and Business Development, Oracle

5:00 p.m. **Closing Remarks and Adjournment**

**Ilkay Altintas, Chief Data Science Officer,
San Diego Supercomputer Center,
University of California, San Diego**

Ilkay Altintas is the Chief Data Science Officer at the San Diego Supercomputer Center (SDSC), UC San Diego, where she is also the Founder and Director for the WIFIRE Laboratory for integrated disaster data and intelligence. Dr. Altintas also directs the Workflows for Data Science Center of Excellence and a Founding Faculty and Fellow of the Halicioglu Data Science Institute (HDSI). In her various roles and projects, she leads collaborative multi-disciplinary teams with a research objective to deliver impactful results through making computational data science work more reusable, programmable, scalable and reproducible. Since joining SDSC in 2001, she has been a principal investigator and a technical leader in a wide range of cross-disciplinary projects. Her work has been applied to many scientific and societal domains including bioinformatics, geoinformatics, high-energy physics, multi-scale biomedical science, smart cities, and smart manufacturing. She is a co-initiator of the popular open-source Kepler Scientific Workflow System, the principal investigator for the award-winning integrated WIFIRE infrastructure for all hazards data management and prediction, and the co-author of over 100 publications related to computational data science at the intersection of workflows, provenance, distributed computing, big data, reproducibility, and software modeling in many different application areas. She earned her Ph.D. degree from the University of Amsterdam in the Netherlands with an emphasis on provenance of workflow-driven collaborative team science. She is an associate research scientist at UC San Diego and regularly teaches courses for the Department of Computer Science and Engineering as a lecturer.

**Franco Amalfi, Director of Strategy and Business
Development, Oracle**

Franco Amalfi leads a team of experts responsible for the go to market strategy for smarter government in State & Local. Franco and his team guide government organizations, on how to leverage cloud-based solution and emerging technologies to deliver personalized government services. In addition to working with customers, Franco authors, publishes white papers and articles on leveraging technology to drive business value for governments. He is also a frequent speaker at government conferences. He is a graduate of McGill University in Montreal, Canada and has completed an Advanced Certificate for Executives in Management, Innovation, and Technology at MIT Sloan School of Management in Cambridge, USA.

**Chuck Anderson, Executive Vice President and
Chief Strategy Officer, ECI**

Chuck Anderson leads the firm's efforts to achieve higher levels of operational excellence while continuing to ensure best-in-class service to ECI customers. In addition, Mr. Anderson provides executive level consulting services with focus on helping customers develop strategies and programs to more effectively leverage remote sensing, including Unmanned Aerial Systems (UAS), geospatial and software technologies to solve their vegetation and asset management related challenges. Prior to joining ECI, Chuck was the General Manager of North American Utilities at GeoDigital International Inc., a leader in 3D mapping services and geospatial intelligence software. Before being acquired by GeoDigital, Mr. Anderson was the Vice President of EcoMarket Development at ImageTree - a LiDAR based remote sensing and analytics firm. Chuck was also a Senior Marketing Manager of the U.S. Forestry Market, at chemical firm BASF Corporation and National Director of Sales at ForestExpress, a forest products e-commerce firm. Chuck also worked 10 years in various roles as a field forester, forest manager and procurement analyst in Florida and North Carolina with forest products giant Georgia-Pacific Corporation. Mr. Anderson is a board member of the Utility Arborist Association (UAA), has a Bachelor's Degree in Forestry from the University of Wisconsin at Stevens Point and an MBA from Duke University.

**Geoff Berlin, Office of Standard and Effectiveness,
U.S. Department of Homeland Security**

Geoff Berlin is with the Office of Standards and Effectiveness at the US Department of Homeland Security where he leads the development of new methods that make use of machine learning and big data applications based on multiple sources of previously recorded aircraft profiles. He received a PhD in Applied Mathematics from John Hopkins University.

**Tom Bialek, Lead Engineer, San Diego
Gas and Electric**

Tom Bialek is currently employed by San Diego Gas & Electric Company ("SDG&E") as a Chief Engineer. His present responsibilities involve technology strategy and policy for transmission and distribution issues including equipment, operations, planning, distributed generation and development of new technologies. His experience includes electric utility design, planning and operation and equipment design, development and manufacturing. Tom is an IEEE Power Engineering and Dielectric and Electrical Insulation Society member. Tom was also the former Failure Mechanism Technical Committee Chair and Secretary of the Dielectrics

Speaker Bios

and Electrical Insulation Society and Working Group Member for Surge Arresters. He is also a registered Professional Engineer, Electrical Engineering, in the State of California.

Jessica Block, Assistant Director, WIFIRE Lab, San Diego Supercomputer Center and Calit2, University of California, San Diego

Jessica Block is the Assistant Director for the WIFIRE Laboratory within the Supercomputer Center at the University of California at San Diego. As an urban geologist and spatial data scientist, her research centers on the dynamic relationship between urban and wildland environments. She works to mitigate disasters using emerging technologies such as satellites, sensor networks, machine learning tools, and virtual reality. She has been part of the WIFIRE Lab since 2013, where she has been part of a team to integrate real-time geospatial data to create scalable and adaptable models of the wildland urban interface. She holds a BS from UCLA and a MS from ASU in Geology with a focus in sustainability and urban ecology.

Danjel Bout, Program Manager, Utility Cyber Security Branch, CPUC

Danjel Bout serves as the Program Manager for the Utility Cyber Security Branch (UCSB) in the Safety Enforcement Division of the California Public Utilities Commission where he is tasked with working collaboratively with industry, local, state and federal agencies to ensure cyber system resilience and to inform the development of best practices, mitigations, and future investments in securing critical infrastructure. Dan has spent more than 25 years in public service, including high tempo operational roles leading emergency response and homeland security. Prior to state service Dan spent 24 years in the US Army, Army Reserve, and National Guard where he promoted from the rank of Private to Lieutenant Colonel.

David Buckley, Vice-President and COO, Technosylva

David Buckley has 32 years of experience in developing and implementing fire protection and wildfire risk applications for government and the private sector. This includes wildfire risk assessments for 30 state agencies, including California and the 17 Western states, in addition to several California local governments and military installations. He is the project lead for Technosylva's wildfire risk forecasting and real-time simulation applications that are currently used by IOUs in California.

Scott Capps, Founder and Principal, Atmospheric Data Solutions

Scott Capps has a passion for atmospheric science research and applications with a background in business and computer

science. After completing a Ph.D. in Atmospheric Science from the University of California, Irvine (UCI) in 2009, he became a Postdoctoral Researcher and later an Assistant Researcher in the Department of Atmospheric and Oceanic Sciences at the University of California, Los Angeles (UCLA). As founder and principal of Atmospheric Data Solutions (ADS), he currently leads a talented team of high-performance computing, numerical weather modeling and machine learning experts. ADS currently supports and enhances many validated high-resolution weather modeling and machine learning solutions for primarily utility companies with applications not limited to wildfire weather.

Jim Cherrie, Director of Grid Operations, Southern California Edison

Jim Cherrie joined SCE in 2007 as the Director of Grid Operations. Previously, he worked for seven years with Sempra Energy, most recently as vice president of marketing for Sempra Energy Solutions. Before that he held several management positions with Scottish Power, where he worked for over 20 years. His background includes managing industry alliances, product development, technology management, quality management, program management, customer service, marketing, transmission, and distribution. Cherrie holds an MBA with distinction from Dundee Business School in the UK.

Craig Clements, Associate Professor of Meteorology, San Jose State University

Craig Clements is an Associate Professor of Meteorology at San Jose State University and Director of the Fire Weather Research Laboratory. He leads research on fire weather, extreme fire behavior, fire-atmosphere interactions, and conducting wildland fire field experiments. Dr. Clements teaches courses in Fire Weather, Wildfire Science, Mountain Meteorology, Climate Change, and Meteorological Instrumentation. He received his PhD in Geophysics from the University of Houston in 2007, his MS in Meteorology from the University of Utah, and a BS degree in Geography from the University of Nevada, Reno. In 2012, Dr. Clements received the National Science Foundation's CAREER Award for his research on wildfire dynamics and fire weather. His current research focuses on obtaining meteorological measurements using state-of-the-art Mobile Atmospheric Profiling Systems such as Doppler Lidar and Radar at active wildfires in the western US.

Brian D'Agostino, Director of Fire Science & Climate Adaptation, San Diego Gas and Electric

Brian D'Agostino is the Director of Fire Science & Climate Adaptation for SDG&E. As director, D'Agostino is responsible for meteorology, fire science, the Community Fire Safety

Program and climate adaptation initiatives. D'Agostino joined SDG&E in 2009 and oversaw the development of SDG&E's weather network, one of the nation's largest and most sophisticated weather networks. D'Agostino serves as an advisor and former chair of the American Meteorological Society's National Energy Committee and sits on several advisory committees specializing in climate adaptation and fire science. D'Agostino is a graduate of Plymouth State University with a bachelor of science in meteorology.

Kate Dargan, Co-Founder, Intterra

Kate Dargan is the Chair and co-founder of Intterra, a geospatial software company that provides cutting-edge situational awareness for public safety. She was a career firefighter through chief for 30 years with CAL FIRE and appointed by Governor Schwarzenegger to the top post of California State Fire Marshal. Over the past 40 years, she has been an awarded leader in public safety, and has served on many boards and commissions related to public safety, wildfire-urban interface issues, and technology needs. She currently sits on the Board for the US Geospatial Intelligence Foundation, host of GEOINT, and the California Fire Safe Council. When not at work changing her corner of the world, Kate enjoys life with her husband, Jim Marquis and their shared 5 grown-up kids: 4 of which are in public safety/EMS.

Skyler Ditchfield, Co-Founder and CEO, GeoLinks

Skyler Ditchfield is the Co-Founder and CEO of GeoLinks, the Fastest Growing WISP in America. Recognized as an industry innovator and thought-leader, Ditchfield is currently appointed to the FCC's Broadband Deployment Advisory Committee – and two associated working groups including the Disaster Response and Recovery Working Group – the Schools Hospitals and Libraries Coalition's (SHLB) Strategic Advisory and Fundraising Committees, and the FCC Advisory Board for Wireless Internet Service Providers Association (WISPA). Recognizing the difference GeoLinks could make in the disaster recovery space with its unique capabilities in building rural and urban networks in off the grid locations, Ditchfield is currently collaborating with CENIC, ALERTWildfire, UC San Diego, University Nevada Reno, Southern California Edison, and PG&E in statewide fire mitigation efforts. In the past three-months alone GeoLinks has installed 85 PTZ fire cameras throughout Southern California to provide critical situational awareness during wildfire events. Ditchfield lead GeoLinks to successfully connect more schools than any other ISP in both 2016 and 2017 earning GeoLinks' a variety of awards including CENIC's "Corporate Partnership Award", the Central Coasts' "Most Disruptive Technology" Award, "Top Entrepreneurial

Companies in America", and the Christina Haska Distinguished Service Award for providing pro-bono services providing critical data circuits to institutions during California's recent wildfires.

Honorable Bill Dodd, Senate District 33

Elected in November of 2016 to represent California's 3rd Senate District, Senator Bill Dodd is a fifth generation Californian and lifelong resident of Napa Valley, where he grew up on a small family farm. California's 3rd Senate District includes portions of Sacramento, Yolo, Napa, Sonoma, Solano and Contra Costa Counties. Prior to his election to the Senate, Bill served one term in the Assembly and 14 years on the Napa County Board of Supervisors. During his time in office, he has taken a leadership role in water policy, while seeking to protect our environment and invest in our state's future. Before entering public service, Bill spent 25 years as a successful small business owner.

Rich Drozen, Operations Chief, CAL FIRE

Simon Dunstall, Research Director, Decision Sciences Program, Data61, the Commonwealth Scientific and Industrial Research Organization (Australia)

Simon Dunstall leads the Decision Sciences program in CSIRO Data61. Data61's mission is to promote a flourishing national ecosystem of researchers, developers and innovators in digital technologies and data-driven businesses. The Decision Sciences program has 100 staff members and a much larger network of collaborators, and has foci including social media analytics, information systems engineering, natural hazard risk modelling, optimisation, and finance and superannuation research. Simon is a researcher in analytics and optimisation. His recent work includes the development of infrastructure network planning systems and the development of methods for quantifying and managing the bushfire-related risks posed by powerlines in Australia. In addition to his role at CSIRO, Simon is the current national president of the Australian Society for Operations Research (ASOR).

David Erne, Supervisor, Energy Systems Research Office, California Energy Commission

David Erne has over 30 years of experience in leading innovative programs to develop and implement sustainability-related strategies and initiatives. He led multiple strategic planning efforts for Department of Energy (DOE) programs to improve energy efficiency in commercial and residential buildings. Supported regional transportation agencies and a fortune 500 firm to establish sustainability strategies. He served as program manager for dozens of high-profile engagements in

Speaker Bios

the federal, state and local sectors that require multifunctional teams of corporate and subcontractor staff to supply a diverse mix of capabilities, including expertise in policy development, technology assessment, simulation and modeling, advanced analytics, communications and outreach, information technology, and regulatory analysis and development. Mr. Erne has worked with clients to engage with other federal/state/ local government agencies, the private sector, nonprofit organizations, and academia to achieve program mission objectives. He managed numerous multimillion-dollar task-order contracts across the federal government. Formerly a commissioned officer in the U.S. Naval Nuclear Propulsion Program.

Kerry Fleming, Air Traffic Security, Federal Aviation Administration

Award winning screenwriter Kerry Fleming was born in Staten Island, NY to Richard and Angelina Fleming. Kerry moved to Connecticut in 1986 to work for the Federal Aviation Administration where he was employed as an air traffic controller serving southern New England before moving to the Washington, DC area in 2007 as an airspace security specialist. Kerry held the position of Quality Control Manager, from 1999 through 2007, with a NYC based Fire Safety Consultant Company called RAO Safety.

Jeff Filip, General Manager and Co-Founder, Intelfuse (Australia)

Jeff Filip is co-founder of Intelfuse and has held international utility sector senior strategy, management, operations and technology implementation roles. Jeff's primary expertise is in business model and technology solution development, leveraging utility asset, engineering and vegetation management system. Jeff holds tertiary qualifications in Electrical Engineering together with a Master's Degree in Business Management and an MBA in Entrepreneurship and his experience spans business process, complex commercial, technology development and business optimisation projects. Jeff has interests across the Energy, Technology, Education and Health sectors and has had many years involvement in startup ventures, and is a foundation member of the Melbourne Angels Investment Group.

Tom Fries, Aviation Services Manager, San Diego Gas & Electric

Tom Fries is part of the SDG&E Emergency Management System team and leads aviation assets which conduct multiple high-risk missions in the SDG&E area of operations. He served in the US Marine Corps in various capacities and has worldwide experience in combat and peacetime operations. He received

a masters of science in Executive Leadership and Business Management from UC San Diego School of Business and bachelor's in Mechanical Engineering Technology from Temple University.

William Craig Fugate, Once Concern, FEMA Administration (2009-17)

William Fugate is the former administrator of the Federal Emergency Management Agency. As Florida Director for the Emergency Management Division, he oversaw the "Big 4 of '04" and as the Administrator for the Federal Emergency Management Agency, he organized recovery efforts for a record of eighty-seven disasters in 2011.

Ralph Garvin, Founder and CEO, Dispatchr

Ralph Garvin is a visionary Stanford University-educated computer scientist and serial entrepreneur. Garvin invented Woosh!'s proprietary core technology at Stanford University and built the Woosh! Team. He holds a proven management record in areas from semiconductors to telecommunication system design as well as with Expert Systems, database management systems, and commercial software development. Prior to founding Woosh!, Mr. Garvin held senior management and technical positions with Savi Technologies, Sequent Computers, and Intel, where he directed and delivered projects in decision support and open database systems. He also managed the delivery of leading edge software solutions for USWest, the Department of Defense, Blue Shield of California, and others.

Mark Ghilarducci, Director, California Governor's Office of Emergency Services

Director Mark Ghilarducci serves as the Director of the California Governors Office of Emergency Services (Cal OES) in the Office of Governor Gavin Newsom. Appointed January 8, 2019 by Governor Newsom to continue his service as Director, following his appointment on July 1, 2013 by Governor Edmund G. Brown Jr. Ghilarducci also previously served as Secretary of the California Emergency Management Agency, appointed in February 2012 by Governor Brown. As a member of the Cabinet, Director Ghilarducci serves as the Governors Homeland Security Advisor and oversees statewide public safety, emergency management, emergency communications, counter-terrorism efforts and the State Treat Assessment System. Director Ghilarducci has more than 30 years of diversified service in public safety in both the public and private sectors.

Mary M. Glackin, Vice President, Science and Forecast Operations, The Weather Company, an IBM Business

Mary Glackin is the VP for Weather Business Solutions for The Weather Company, an IBM Business serving more than 5000 clients globally delivering weather and climate services. In this role, she oversees forecasting science and operations, and product development. Glackin also manages the company's relationships with members of the national and global weather enterprise that includes national and international government agencies, academia, and other private sector providers including philanthropic activities. Prior to this, Glackin served as Deputy Under Secretary at NOAA from 2007-2012 where she was responsible for day to day management of the atmospheric services, research, and coastal and marine stewardship of this agency. Glackin is a Fellow of AMS and was recently elected as their President with a term commencing in January 2020. She is currently serving on Board of Atmospheric Science and Climate and recently co-chaired the consensus report: Sustaining Ocean Observations to Understand Future Changes in the Earth's Climate (2017).

John Goodfellow, Principal Consultant, BioCompliance Consulting Inc.

John Goodfellow has over 30 years experience in the electric and gas utility industries; having held positions of increasing responsibility for vegetation management, T&D operations, maintenance, and engineering at three large investor owned electric & gas utilities. Mr. Goodfellow has been the Principle Researcher on several R&D projects focusing on the modes and causes of trees cause power interruptions. This work has led to development of a conceptual model useful in understanding and Mr. Goodfellow was a long time Trustee of the Research, Education, and Endowment (TREE) Fund, and is a past president of the Utility Arborist Association. He worked directly with the Nation Arbor Day Foundation in creating that organization's "TreeLine USA" award program recognizing utilities for excellence in vegetation management. He has served on a industry standards committee, writing pruning standards for utility line clearance work. He also is a cited as a contributor to Dr. Alex Shigo's pocket field guide "Pruning Trees Near Electric Utility Lines".

San Gunawardana, Co-Founder and CEO, Enview

San Gunawardana has over 15 years of experience with remote sensing and automated threat-detection algorithms. After finishing a PhD in machine learning at Stanford, Dr. Gunawardana was embedded with the U.S. Army in Afghanistan where he combined data analytics and remote sensing to help detect threats and prevent incidents. He

previously did computer vision and high-performance computing at NASA and built imaging satellites with the Air Force. Today, he is the co-founder and CEO of Enview, a Silicon Valley-based geospatial AI company that exists to protect people and critical infrastructure by transforming nation-scale 3D data into insights and actions. Enview's proprietary geospatial AI automatically and rapidly calculates clearances between vegetation and power lines to prevent outages and wildfires, generates 3D maps of vegetation health and volumes, and assists government missions with fast and accurate 3D analytics.

Hendrik F. Hamann, Research Manager for Physical Analytics, IBM

Hendrik F. Hamann is currently a Senior Manager and Distinguished Researcher in the Physical Sciences Department at the IBM T.J. Watson Research Center, Yorktown Heights, NY. He received his PhD from the University of Göttingen in Germany. During his thesis he developed new spectroscopic techniques to investigate the dynamics and kinetics of transient, short-lived radicals. He was the first one to study the dynamics of radicals under high pressure conditions using saturated laser induced fluorescence spectroscopy.

Scott Holmquist, Perimeter Solutions

Scott Holmquist has more than 33 years in fire service, retiring as the Assistant Deputy Director of fire protection operation at the California Department of Forestry and Fire Protection (CAL FIRE). At CAL FIRE, he served as a Type I Incident Commander and oversaw department operations for the aviation, fire chemicals, and mobile equipment programs. Since 2008, he has served as the owner and principal consultant of Pursue It Consulting, with a primary focus on fire protection, asset protection and emergency management. He recently developed a fire prevention program for a utility vegetation management company. Previously, he spent more than four years as a public safety specialist for Pacific Gas and Electric.

John Horel, Department of Atmospheric Sciences, University of Utah

John Horel is a professor at the University of Utah in the Department of Atmospheric Sciences. His work centers on the observation and analysis of weather and climate processes in mountainous regions including further development of MesoWest and SynopticLabs which provide access to surface weather observations for operational, research, and educational applications. They also provide a foundation from which to conduct research to improve numerical models and data assimilation techniques over complex terrain and evaluate

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the cost effectiveness of surface observing networks. He is also involved in research and development related to fire weather applications, the Great Salt Lake, and air quality along the Wasatch Front and in the Uintah Basin. Dr. Horel has won numerous awards for his work. He received PhD Atmospheric Sciences from the University of Washington and bachelor's of science in Meteorology from San Jose State University.

Nicole Hu, Chief Technology Officer, One Concern

Nicole Hu serves as the CTO and Co-Founder of One Concern, a Palo Alto-based benevolent AI company with a mission to save lives and livelihoods before, during and after natural disasters. As the CTO for One Concern, Ms. Hu leads the company's diverse team of technology specialists and hazard scientists, combining AI and human learning to predict the impact of natural disasters including earthquakes, floods and fires. In 2016, Forbes named Ms. Hu one of the world's top innovators in its "30 Under 30" edition. Prior to launching One Concern with her co-founders, Ahmad Wani and Tim Frank, Ms. Hu received her Master's degree in machine learning from Stanford, where she studied under noted AI pioneer, Andrew Ng.

Jeff Johnson, CEO, Western Fire Chiefs Association

Chief Jeff Johnson has an extensive public safety background, with broad experience at the local, national and international level. Chief Johnson rose through the ranks to become the Tualatin Valley Fire & Rescue Fire Chief for 15 years retiring in 2010 after a 32 year career. Chief Johnson has authored 2 books... Making the Pieces Fit – A book on merger and consolidation and Recruiting, Training and Maintaining Volunteer Firefighters, both with Jones and Bartlett publishing. Chief Johnson served as the Vice Chairman of FirstNet who is deploying the world's first nationwide wireless broadband network dedicated to public safety and national security users. Chief Johnson has served as President of the International Association of Fire Chiefs (IAFC), President of the Western and Oregon chiefs and is currently the CEO of the Western Fire Chiefs Association which serves fire chiefs in the 11 western states from Guam/Saipan to Utah. Chief Johnson also has an extensive private sector background serving as an advisor or board member to numerous technology companies. Chief Johnson is also the principle at Sisters Meat and Smokehouse which launched in August of 2016. Chief Johnson is a graduate of Concordia University and the National Fire Academy Executive Fire Officer program.

Matt Jolly, United States Forest Service

William Matthew "Matt" Jolly is a Research Ecologist in the Fire, Fuel and Smoke Science Program of the US Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory

in Missoula, MT. He received a BA in Environmental Science from the University of Virginia and a PhD in Forestry from the University of Montana. He is also the project administrator for the research and development team of the USFS Wildland Fire Assessment System (WFAS) and is continually evaluating and developing tools for landscape-scale fire danger assessment. His research explores how wildland fuel characteristics and fire weather conditions vary across space and time and how these variations impact wildland fire potential. Ultimately, his work will lead to improved wildland fire danger and behavior prediction tools.

Graham Kent, Director, Nevada Seismological Lab, University of Nevada – Reno

Graham Kent is Director of the Nevada Seismological Laboratory at the University of Nevada, Reno. He attended San Diego State University, where he studied Geophysics and graduated Valedictorian of the Class of 1985. Thereafter, he entered graduate school at Scripps Institution of Oceanography receiving his PhD in 1992. After a 4-year-long appointment at Woods Hole Oceanographic Institution, Graham returned to Scripps to continue his work in geophysics, with an emphasis toward seismic studies, ranging from magma chambers beneath mid-ocean ridges to fault hazards and tsunami at Lake Tahoe. In 2009, Graham moved to Nevada, where he helped the lab move toward the Internet of Things (IOT) approach to rebuilding the seismic network, and more recently, leading the design and build out of the ALERTWildfire camera network. He is also involved with the Great Nevada ShakeOut earthquake drill and earthquake early warning in California, while setting the stage for adoption in Nevada.

James Keener, Chief Executive Officer, Sentient Energy

James "Jim" Keener joined Sentient Energy in 2014 as Chief Executive Officer. Jim's key mission is to lead the business development and strategic marketing efforts of Sentient Energy. Jim earned a Bachelor of Science degree in Electrical Engineering from the University of Florida, Master of Business Administration from Nova Southeastern University and is a graduate of the Program for Management Development at Harvard University. He holds U.S. patents for Dispatchable Renewable Energy Generation, Control, & Storage Facility and System & Methods for Air Intake Filter Assemblies. He has authored and presented for industry groups for Power Generation and Combustion Turbine Technology. Jim was named "2015 Smart Grid Pioneer" by Smart Grid Today.

Adam Kochanski, Assistant Research Professor, Atmospheric Sciences, University of Utah

Adam Kochanski is a research assistant professor working at the University of Utah Atmospheric Sciences Department. He received his M.Eng in Chemical Engineering and MBA from Technical University of Lodz (Poland) and Ph.D. in Atmospheric Sciences from the University of Nevada, Reno. His main research interests include fire-atmosphere interactions including air quality impacts of wildland fires. He is a modeler with extensive experience in running numerical simulations of fire, smoke, and regional climate on high-performance computing platforms. He is a co-developer of the coupled fire-atmosphere model WRF-SFIRE, the integrated fire and air quality system and WRF-SFIRE-CHEM, as well as the fire forecasting system WRFX. He is one the modeling leads for the Fire and Smoke Model Evaluation Experiment (FASMEE) and a member of the Rocky Mountain Center for Fire-Weather Intelligence (RMC) steering committee.

Julie Leimbach, Facilitator and Director, Kearns & West

Julie Leimbach specializes in consensus-building and interest-based negotiations in the natural resources and energy space. She has built private public collaboratives that have found common ground and developed broadly supported solutions. She has supported NGOs, businesses, state agencies, utilities, and local government to form multi-stakeholder collaboratives in the Central, Eastern, and Southern Sierra regions. She launched and facilitated these public-private partnerships to attract investment, strategize, and develop projects to address the Sierra's legacy checkerboard land use patterns and history of fire suppression as elements of watershed-scale planning. In addition, as a facilitator for a coalition of NGOs and recreational businesses, Julie supported negotiation of agreements on forest and recreation management related to hydropower operations. She attracted private capital and managed climate change modeling to inform analyses of the hydropower project's future water inputs given forest attributes including vegetation and evapotranspiration. In her capacity as the Vice-Convenor of the California Urban Water Conservation Council, Julie worked to broaden the credited best management practices to incentivize the growing development and application of water efficient technologies to conserve water in various contexts. More recently, Julie worked with the Grant Farm to develop the CEC-funded CalTestBed program to accelerate clean tech innovators through a network of California testbeds.

Steve Liebelt, Stanford Linear Accelerator Center (SLAC), Department of Energy

Steve Liebelt is a Project Controls Engineer at the SLAC National Accelerator Laboratory. Recently Steve has been part of a team at SLAC responsible for improving and formalizing SLAC's vegetation management strategy. He also had the opportunity this last year to spend extensive time in the field planning and overseeing tree work. Steve's background includes a love of science, a degree in Mathematics, several years as a computer scientist, several years analyzing and reporting project cost, schedule and budget metrics.

Brian Marshall, Fire Chief, California Office of Emergency Services

Chief Brian Marshall was appointed as Fire Chief at Cal OES in 2018. He served as the Kern County fire chief from 2012 – 2018. Prior to that, he served as incident commander or agency administrator on several wildfires in Kern County including multiple simultaneous lightning-caused wildfires in 2011 as well as the West fire, Comanche Complex fire, and Canyon fire. As a national team member, Marshall responded to Hurricane Katrina as a disaster search canine handler in 2005. Marshall earned an A.S. degree in Fire Technology at Bakersfield College. In addition, he has completed extensive training in hazardous materials response, fire suppression tactics, and incident management at the Federal Emergency Management Agency, the National Wildfire Coordinating Group, and the California Fire Service Training and Education System. Marshall and his family reside in Bakersfield.

Tom Martin, Managing Director of Product Management, Energy & Utilities, TROVE

Mr. Tom Martin is presently Managing Director of Product Management, Energy & Utilities at Trove - Predictive Data Science since Aug 2018 and is based out of Seattle. Trove is an information services firm that provides data-powered predictive science's in the form of demand forecasting, program optimization, fraud identification, and customer segmentation. He is also a Conference Presenter and Professional Speaker within the Utility sector, where he has represented the smart grid and analytics industry as an energy innovation speaker at a wide variety of public engagements. Prior to this he had a long standing tenure at Pacific Gas and Electric Company where his primary roles were Manager Grid of Things (Mar 2017 – Aug 2018), Manager, Emerging Technologies (Sept 2017 - Mar 2017), Emerging Grid Technologies, Principal: Data, Analytics, and Visualization (Sept 2014 – Sept 2015), Smart Grid and R&D Strategy (Sept 2013 – Sept 2014). Mr. Martin works as a product executive, industry expert and leader who works to

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strategically align internal/external stakeholders and deliver new data analytics products for Energy and Utility customers. His specialties lie within smart grid, new data analytics technologies, data visualization and situational intelligence.

David Marvin, Co-founder & CEO, Salo Sciences

David Marvin is a forest ecologist and remote sensing scientist. His academic research focused on forest carbon, forest disturbance, and GHG flux modeling of land management under climate change scenarios. Recently, Dr. Marvin co-founded Salo Sciences, a conservation analytics & monitoring company that provides high resolution monitoring services and analytics of forest cover, structure, function, and disturbance. Salo combines ecological science, satellite imagery & artificial intelligence with a mission to enable sustainable ecosystem management by improving how landowners invest in conservation and climate change mitigation.

Jack McCabe, Vice President & General Manager at Davey Resource Group

Jack McCabe joined Davey in 1999 as a supervising consulting utility forester. Since then, McCabe has been promoted to a vice president and general manager, where he leads DRG's utility vegetation management consulting group to ensure it delivers solutions that result in client success and creates opportunities for employee advancement. McCabe has more than 25 years of experience in the industry, building leadership, supporting employees and helping clients make their programs safer, more efficient and more sustainable. McCabe holds a bachelor's degree in environmental studies from the University of California at Santa Cruz. He has held leadership roles with several industry associations including director of the Utility Arborist Association; board president of the California Urban Forests Council; board chair of the California Urban Forestry Advisory Committee of CAL FIRE; and council chair of the Advisory Council for the Forestry and Environmental Science Department of California Polytechnic University at San Luis Obispo. In addition, McCabe volunteers with the American Red Cross of Portage, Summit and Medina Counties as a member of the board of directors and chair of the service delivery committee.

Tony Mecham, San Diego Unit Chief, CAL FIRE

Tony Mecham is a 32 year veteran of CAL FIRE and for the past five years has served as the Fire Chief for CAL FIRE San Diego and the San Diego County Fire Authority. Chief Mecham has a diverse background within the Department having worked in Sonoma, Riverside and San Diego Counties. He is a certified Chief Fire Officer by the State of California and holds an Associate Degree in Fire Protection and Bachelors

Degree in Political Science and a Graduate Certificate in Fire Protection Administration.

Andrew Mills, President, Erickson Commercial Group

Andrew Mills rejoined Erickson in 2012, and prior to his current position was General Manager of Airplane Operations and Director of Aerial Services Sales and Marketing. Mr. Mills has over 25 years of experience in helicopter operations and contracting. Prior to joining Erickson, he served as General Manager of Carson Helicopters, and Director of Operations for Swanson Group Aviation. Before working exclusively in the heavy helicopter arena, he served as Vice President of Operations for Phoenix Geophysics, a world leader in exploration geophysics specializing in frontier exploration utilizing helicopter-supported geophysical tools. He has extensive experience in aerial firefighting and international helicopter contracting and has worked in more than 20 countries. Mr. Mills graduated from Oregon State University with a Bachelor of Science degree in Geology, with post graduate work in geophysics. He is a past Chairman of the Oregon Heavylift Helicopter Consortium, and current Vice Chairman of the HAI Government Resources/Firefighting Committee.

Manuel Miranda, Senior Vice President, Power Delivery, Florida Power & Light

Manuel "Manny" Miranda is vice president of power delivery for Florida Power & Light Company (FPL). He is responsible for the planning, engineering, construction, maintenance and operations of the company's transmission, substation and distribution facilities. Mr. Miranda was named to this position in April 2013. Prior to his current role, Mr. Miranda served as vice president of transmission & substation, and before that, as vice president of distribution system performance, where he was responsible for FPL's Storm Secure initiative to substantially strengthen the distribution infrastructure against future hurricanes. Earlier, Mr. Miranda was director of distribution operations, and prior to that held a variety of roles within the customer service and distribution areas of the business, including commercial and industrial manager and roles in engineering and dispatch operations. He joined FPL in 1982. Mr. Miranda holds a Bachelor of Science degree in Mechanical Engineering from the University of Miami and an MBA from the Nova Southeastern University. He serves on the Board of Governors for NSU's H. Wayne Huizenga School of Business and Entrepreneurship. Previously, Mr. Miranda has served on the boards of both the Florida Reliability Coordinating Council and the North American Transmission Forum.

Anthony D. Palizzi, Regional Service Line Manager Power Americas

Anthony Palizzi is a dynamic and results-focused leader with over 27 years of progressive experience in sales, business development, revenues, and profits. He has held several executive management positions with leading geospatial, software, technology, and consulting firms. He has extensive experience and knowledge base delivering asset management, land management, mobile, and GIS custom solutions, to multiple markets including: Power Commercial, Governments, Natural Resources, and Public Sector. Mr. Palizzi serves on the Board of Directors of several organizations, is actively involved in numerous volunteer organizations and is a member of several technology and business associations. He has a Master's of Management/Organization Development from Regis University and a Bachelors of Science in Geology/Landuse from Metropolitan State University.

Jeff Pauska, Business Strategy, Hitachi Consulting and Leonard Lee, Founder and COO, Dispatcher

Jeff Pauska is a Senior Manager within Hitachi's Business Transformation Practice. He holds two Bachelor of Science degrees in Finance and International Business from Indiana's Kelley School of Business and is currently pursuing his MBA in Strategy at Northwestern's Kellogg School of Management. Bringing a combination of industry thought leadership from Japan and overseas ventures, and leveraging the \$100B Hitachi portfolio, he has successfully deployed strategies within capital-intensive industries to help scores of utilities worldwide improve safety, reliability, productivity, and financial performance.

Michael Picker, President, California Public Utilities Commission

Michael Picker was named President of the California Public Utilities Commission (CPUC) on December 23, 2014, by Governor Edmund G. Brown Jr., who first appointed President Picker as a Commissioner on January 29, 2014. Prior to his appointment, President Picker was Senior Advisor for Renewable Energy in the Office of the Governor from 2009 to 2014. He was a principal at Lincoln Crow Strategic Communications from 2000 to 2009, Deputy Treasurer in the Office of the California State Treasurer from 1998 to 1999, Chief of Staff to Sacramento Mayor Joe Serna Jr. from 1992 to 1999, and Deputy Assistant for toxic substance control in the Office of the Governor from 1981 to 1982. He was a member of the Sacramento Municipal Utility District Board of Directors from 2012-2014. President Picker is a former lecturer at UCLA's Graduate School of Architecture and

Urban Planning, and instructor at Occidental College's Urban and Environmental Policies Institute. He holds an MBA from UC Davis, specializing in marketing, social marketing, and nonprofit management.

David Pierce, Climate Scientist, Scripps Institution of Oceanography

David Pierce is a scientist at UC San Diego's Scripps Institution of Oceanography. He holds a PhD in Physical Oceanography from the University of Washington, master's of science from University of Washington, and bachelor's of science in physics from UC Santa Cruz.

Thom Porter, Chief and Director, California Department of Forestry and Fire Protection

Thom Porter was appointed Director by Governor Gavin Newsom on January 8, 2019. Chief Porter was designated Acting Director of the California Department of Forestry and Fire Protection by Governor Edmund G. Brown Jr. on December 14, 2018. He has been serving as Chief of Strategic Planning in CAL FIRE Sacramento Headquarters since January 1, 2018. Previously, he served as the Southern Region Chief, Assistant Region Chief, and San Diego Unit Fire Chief. Chief Porter's depth of fire department management expertise is balanced by his forestry background. He is a Registered Professional Forester (RPF) in California with a Bachelor of Forestry Degree from the University of California Berkeley.

Mahesh Prakash, Group Leader and Senior Principal Research Scientist, CSIRO Data61

Dr. Mahesh Prakash is a Senior Principal Research Scientist at CSIRO Data61 and leads a group of Scientists, Engineers and Software Professionals who develop and apply a diverse range of modelling and analytics techniques for urban and peri urban environmental applications with a key focus on emergency and disaster management. His scientific and technical interests are in wildfire and flood modelling, geospatial big data analytics and the confluence between environmental research (including climate change and climate change related risk) and technology. He works closely with other Business Units in CSIRO in order to achieve much needed cohesion between the deep science and technology expertise that lies within CSIRO in this area of research.

Ron Raley, Perimeter Solutions

Ron Raley has 50 years working in Wildland Fire Management. He spent 35 years with the United States Forest Service (USFS) finishing his career with them as the Deputy Director of Fire and Aviation Management for the Pacific Southwest Region (R5). Throughout his work with the USFS he has held numerous

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positions on Incident Management Teams and served as a Type I Incident Commander dealing with complex incidents across the country. For the past 14 years he has served as the owner and principal in Raley's Forestry and Wildfire Management. He is a Registered Professional Forester and a long-standing member of the Society of American Foresters.

Joaquin Ramirez, Founder, Technosylva

Joaquin Ramirez is the Founder and Principal Consultant at Technosylva (San Diego), and has worked with leading agencies in the US and worldwide to create sophisticated fire behavior analysis and management software for Wildland fire, including fiResponse, Wildfire Analyst and WRRM, the system in operation in SDG&E and other utilities. As a Professor at the University of Leon (Spain), he teaches the first class on Geotechnologies and Wildfires at the first European MsC in Wildland Fires www.masterfuegoforestal.es.

Tom Rolinski, Fire Scientist, Southern California Edison

Tom Rolinski is currently the Fire Scientist for Southern California Edison (SCE) one of the nation's largest utilities. In this role Tom is responsible for bringing together the latest science and technology to help build a comprehensive fire program for reducing wildfire risk across SCE's service territory. Prior to joining Southern California Edison, Mr. Rolinski worked for the federal government for nearly 27 years, spending most of that time in fire weather. During the last 15 years, he became a recognized leader in California's fire program. His pioneering approach to fire meteorology and his collaborative spirit have led the way in developing new tools to assess wildfire threat across the state.

Mathew Rommel, Commercial Market Leader, US Drone Service, Deloitte

Mathew Rommel is the Commercial Market Leader for Deloitte US Global Drone Solutions. He brings deep subject matter experience in Unmanned Aerial Systems strategy, operations, logistics, and scaling. As the Commercial Market Leader, Mr. Rommel understands the unique needs of clients in various industries, including energy, construction, agriculture, infrastructure, and healthcare.

Dave Sapsis, Senior Fire Scientist, CAL FIRE

Dave Sapsis has 34 years of experience in the field of wildland fire science, beginning with seasonal work conducting prescribed fire for a variety of land management agencies and conducting basic research on live fuel combustion and shrub regeneration requirements. He currently serves as Senior Fire Scientist

and research program manager with CAL FIRE's Fire and Resource Assessment Program. Dave serves as project lead on a number of land- and fire-management topics including wildfire hazard and risk assessment for strategic planning, Wildland-Urban Interface mapping, fuel and fire behavior modeling for strategic and tactical support, and impacts of land management activities on long-term forest health and carbon sequestration. In addition, Dave served from 2013 – 2018 as a technical advisor to the California Public Utilities Commission heading up the development of Fire Threat Maps fire revised Fire Safety Rulemaking. Dave received his B. S. in Forestry from UC Berkeley, an M.S. in Fire Ecology from Oregon State University, and is a Ph.D candidate in Fire Science at UC Berkeley.

Phillip SeLegue, Battalion Chief – Intelligence, CAL FIRE

Chief SeLegue attended Crafton Hills and Riverside Community Colleges. Chief SeLegue holds an Associate's Degree. Chief SeLegue has assisted or been the lead for several groups and cadres from Mobile Communication Units, Community Emergency Response Teams CERT, NWCG SIT/209 change board, NWCG Intel Subcommittee, NFDRS16 Instructor, SCOUT administrator and Lead Instructor of Field Observer courses. Chief SeLegue is currently a Type 1 Planning Section Chief Trainee for CAL FIRE Incident Management Team 5.

John Simmins, Technical Executive, Electric Power Research Institute

John Simmons is a Technical Executive at the Electric Power Research Institute (EPRI) where he manages the Information and Communication Technology for Distribution project set. His current responsibilities focus on bringing thought leadership in the area of integrating diverse applications. Dr. Simmins also leads the EPRI efforts in the use of augmented reality, social media, data analytics, and visualization to improve outage restoration efforts and improve grid resilience. Dr. Simmins brings over 15 years of implementing highly integrated systems which span the latest technology to mature legacy systems. Dr. Simmins spent six years at Southern Maryland Electric Cooperative as Director of Engineering and Operations Systems. Prior to that, he had eight years consulting in project management, application integrations and supply chain automation.

Karamvir Singh, Head of Product & Strategy, Power Lines Pro (PLP)

Karamvir Singh has worked in business and IT roles across a range of competitive industries. His work experience includes implementation of risk management programs across several

industries including manufacturing, banking, and high-frequency trading systems. Through his work, he has acquired a deep appreciation of the importance of risk management strategies and the various methodologies utilized to implement them. Since joining Power Lines Pro, he has led the product development PLP's risk management solution, with an overall ambition of making it the most comprehensive and advanced wildfire risk management systems in the world. He is also responsible for innovation strategy and execution and is currently working with a number of utilities to prototype and implement PLP's wildfire risk analytics platform. When not at work, you'll find Karam spending time with his wife and two children in Sydney, Australia.

Sumeet Singh, VP Wildfire Community Safety Program, Pacific Gas & Electric

Sumeet Singh is the Vice President of the Community Wildfire Safety Program for Pacific Gas and Electric Company. This program consists of additional cautionary measures following the 2017 and 2018 wildfires intended to further reduce risk on PG&E's electric system and includes partnering with communities on wildfire safety and prevention efforts. Key facets include real-time monitoring and intelligence, new and enhanced safety measures and system hardening and resiliency efforts. Sumeet holds a bachelor's degree in Civil and Environmental Engineering from the University of California, Berkeley, and a MBA from UCLA Anderson School of Management. He is a registered professional Civil Engineer in the State of California.

Alice Stebbins, Executive Director, CPUC

Alice Stebbins became Executive Director of the CPUC in February 2018. Ms. Stebbins previously served as Division Chief over Administration for the California Air Resources Board from 2011 – early 2018. She first joined the State of California as a sales and use tax auditor with the Board of Equalization in 1986. Since that time, she has worked for the Department of Transportation, Department of Justice, and the State Water Resources Control Board where she performed forensic accounting, auditing, project management, and administration, while managing large complex teams.

Honorable Henry Stern, Senate District 27

Senator Henry Stern is a sixth-generation Californian and native of this district. He credits his passion for public service as a family trait, whose diverse history includes farming and ranching, music and film, and a steadfast commitment to helping young people fulfill their potential. Senator Stern was elected to represent the 27th Senate District, which includes parts of Los Angeles and Ventura counties, on November

8, 2016. Senator Stern has also lectured at UCLA and UC Berkeley, enjoys volunteering at his local Boys & Girls Club and is a member of the Santa Monica Mountains Conservancy Advisory Committee, the Jewish Federation, the American Jewish Committee, and the Truman National Security Project. He is an alumnus of Harvard University and UC Berkeley Law.

Edward Struzik

Edward Struzik is a writer, educator, public speaker and a fellow at the Institute for Energy and Environmental Policy in the School of Policy Studies at Queen's University in Kingston, Ontario. For the past decade, he has been a regular contributor to Yale Environment 360, an international on-line magazine offering opinion, analysis, reporting and debate on global environmental issues. His articles and essays appear in journals, magazines and newspapers such as Scientific American, Natural History, National Geographic, Ensa, Policy Options, Foreign Policy Review, the Los Angeles Times, Canadian Geographic, the Globe and Mail, and National Post. Struzik has written six books and contributed to several others. He has earned more than 30 international and national awards for his writing and his books. Included among them are the U.S.-based Grantham Prize for excellence in writing on the environment; the Sir Sanford Fleming Medal for outstanding contribution to the understanding of science in Canada; and the Atkinson Fellowship in Public Policy. His latest book, *Firestorm How Wildfire Will Shape Our Future*, is currently an Amazon.ca best seller.

Luis Vance Taylor, Chief, Office of Access and Functional Needs, Cal OES

Luis Vance Taylor, Chief of the Office of Access and Functional Needs at the California Governor's Office of Emergency Services, is responsible for ensuring the needs of individuals with disabilities and persons with access or functional needs are identified before, during and after disasters and integrated into the State's emergency management systems. Born and raised in the San Francisco Bay Area, Vance was diagnosed with muscular dystrophy as a child and uses a power wheelchair. He has worked in Washington, D.C. as an advisor for two different members of Congress, directed security policy at a national water association and been a principal at a top-ranked homeland security and emergency management consulting firm, Catalyst Partners, LLC. Vance is a nationally recognized public speaker and advocate for individuals with disabilities. Vance has a master's degree in homeland security from the University of Connecticut and an undergraduate degree from Brigham Young University in communications. He is married to his sweetheart, Casey, and they have two beautiful daughters.

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Ralph Terrazas, Fire Chief, Los Angeles Fire Department

Ralph M. Terrazas is the Fire Chief of the Los Angeles Fire Department (LAFD). Prior to his appointment, he was an Assistant Fire Chief assigned to the South Division "A" Platoon. As a Division Commander, Terrazas was responsible for leading, managing, and training the approximately 500 members on duty at 54 fire stations throughout seven battalion commands. During his tenure, he has served as a chief officer for 14 years in a variety of field and administrative commands. He established the Department's Professional Standards Division (PSD), which upgraded and professionalized the LAFD's disciplinary system; applied metric-based management at the Division and Battalion level to achieve continual improvement and data tracking of specific objectives; led the development and passage of the Proposition "F" Fire Station Bond, which enabled the construction of 19 new LAFD stations; served as the Community Liaison Officer, and is the holder of a U.S. Patent for a "Brush Fire Rate of Spread" tool and an Emmy Award of Excellence for production of a public service announcement program. He holds a Bachelor's Degree in Public Administration and a Certificate in Fire Protection Administration from San Diego State University. In 1995, he received Master's Degree in Public Administration with an emphasis on Human Resource Management from California State University, Los Angeles.

Caroline Thomas Jacobs, Cal OES

Caroline Thomas Jacobs is the Chief of Headquarters Operations for Response at the California Governor's Office of Emergency Services. After starting her career at Apple, Inc., Caroline now combines her unique background in technology with her years of tactical, search & rescue operations to serve in emergency management. With responsibility for the State Operations Center, the California State Warning Center, the Strategic Information Management Office, and Cal OES' core response technologies, including GIS, Caroline leads the strategic implementation of Cal OES's response policies, procedures, and technologies for response operations based out of Cal OES' headquarters to ensure California's readiness to respond to any disaster.

Amy Tong, Director of California Department of Technology and State Chief Information Officer (CIO)

As State Chief Information Officer (CIO) and Director of CDT, Amy is responsible for advising the Governor on the strategic management of the state's Information Technology (IT) resources. She is also responsible for establishing and implementing state IT strategic plans, policies, standards and enterprise architecture while minimizing overlap, redundancy

and cost by promoting efficient and effective use of IT. Ms. Tong coordinates the activities of State Agency Information Officers and department CIOs to integrate statewide technology initiatives. She ensures compliance with IT policies and standards in the areas of Digital Services, Information Security, Project Delivery, Innovation and IT Workforce development. Under her leadership, CDT with input from hundreds of statewide IT leaders established California's Statewide Technology Strategic Plan – "Vision 2020" to improve the way government services are delivered to Californians. The ultimate goal is to create one digital government securely delivered by a dynamic workforce. Ms. Tong has nearly 25 years of business, technology, and management experience in the public sector. Prior to being appointed director of CDT, she served as Chief Deputy Director and Agency Chief Information Officer in the Office of Systems Integration at the California Health and Human Services Agency, Deputy Director and Chief Information Officer at California Lottery, Chief Technology Officer at Board of Equalization; Chief of the Data Center at California Public Employees' Retirement System; and was the acting CIO at the Water Resources Control Board. Ms. Tong has a Bachelor of Science degree in Management Information System (MIS) and a Master of Business Administration (MBA) from California State University, Sacramento.

Steve Vanderburg, Principal Meteorologist, San Diego Gas and Electric

Steven Vanderburg has 18 years of operational weather forecasting experience in California, including 10 years with the National Weather Service and 8 years with San Diego Gas & Electric (SDG&E). While at the National Weather Service in San Diego, Vanderburg served as the local Fire Weather Program Manager and amended the Red Flag Warning criteria for portions of Southern California. Vanderburg joined SDG&E in 201 and was part of a team that developed innovative tools and forecast products to enhance situational awareness of the fire weather environment. In his current role as Principal Meteorologist, Vanderburg supports SDG&E's Community Fire Safety Program and serves as the utility's lead forecaster during periods of critical fire weather events.

Clyde Wheeler, Applied Scientist, Descartes Labs

Clyde Wheeler is an applied scientist at Descartes Labs in Santa Fe, New Mexico, where he uses AI to turn images and data into actionable information. Prior to Descartes Labs, Clyde worked in the space industry building small satellites at the UTIAS Space Flight Laboratory and at Surrey Satellite Technology, Ltd.

Chris Wilch

Chris Wilch is Data and Artificial Intelligence Specialist for Microsoft Enterprise Services. Chris has 25 years of public sector and emergency response coordination experience. He attended Western Oregon University where he studied computer science and public policy administration. Chris lives in Salem, OR with his wife and two children.

Mike Wilson, Assistant Chief, CAL FIRE

Mike Wilson has spent the last 32 years in CAL FIRE working his way from Seasonal Firefighter to Assistant Chief. Since 1987 he has work on wildland and structural fire engines, helicopter fire crews, and lead inmate hand crews. Over the last 17 years Mike has focused is career on fire prevention and vegetation fuels management, defensible space around homes, and now utility fire mitigation.

Caroline Winn, Chief Operating Officer, San Diego Gas and Electric

Caroline Winn is chief operating officer for San Diego Gas & Electric (SDG&E), one of Sempra Energy's regulated California utilities. Winn became chief operating officer of SDG&E in January 2017. Previously, Winn served as chief energy delivery officer, overseeing all energy delivery activities for SDG&E, including electric distribution operations and gas services, customer services, and external and state legislative affairs. Since joining the company in 1986 as an associate engineer, Winn has held a number of leadership positions with SDG&E and Southern California Gas Co (SoCalGas). Previously, she was director of supply chain management for both SDG&E and SoCalGas following her role as director of transmission and distribution asset management responsible for distribution planning, electric reliability, compliance management and information technology management. Winn has a bachelor's degree in electrical engineering from California State University Sacramento and is a registered professional engineer in the state of California. Ms. Winn sits on the board of directors for SDG&E, Veloz and Monarch School; the executive council for Western Energy Institute; and serves on the Scripps Institute of Oceanography-Director's Council. She is also a member of the management council and finance and is vice chair for the San Diego Regional Chamber of Commerce. Active in philanthropy, she is past executive chair of the Classroom of the Future Foundation, as well as the Leukemia & Lymphoma Society.

Dave Winnacker, Fire Chief, Moraga-Orinda Fire District

Chief Dave Winnacker has been in the fire service for 15 years in Fresno City, Alameda County, and Moraga-Orinda Fire District. In response to the threat of large scale wildfires to his district, he has been developing a comprehensive wildfire risk system for Moraga-Orinda using ground based sensors for early warning and near real time automatic fire spread modeling to produce decision support tools for first responders and emergency managers. This work has been funded by grants from the California Fire Foundation and Gordon and Betty Moore Foundation. He also served on active duty as a Marine Corps Infantry officer from 1997-2003 and has remained in the reserves. As a reserve officer he served as the commanding officer of 4th Force Reconnaissance Company from 2014-2016 and currently serves as the executive officer of 23d Marine Regiment in San Bruno, CA. He is a Colonel (sel) and was recently selected to serve as the Deputy Commander of the regiment commencing May 2019.

Alan Wong, CEO, IND Technology Pty Ltd. and Associate Professor, RMIT University

Alan Wong is the founder and CEO of IND Technology, a multi-award winning company which produces patented early fault detection (EFD) and 24/7 asset monitoring product for the power, railway and renewable energy industries. The EFD product currently monitors several hundreds of kilometres of powerlines for power companies in Australia for conditions indicating imminent asset failures that could cause fires and supply outages. Alan has over 15 years of experience in developing smart sensor network and powerline safety technology. He also serves as Associate Professor at RMIT University, Australia leading a group of researchers in the area of electrical insulation and IoT-based high voltage asset monitoring.

Brian Woodbeck, Deputy Chief, California Governor's Office of Emergency Services

Brian Woodbeck oversees the Cal OES Operations (Ops) Section under the Fire and Rescue Division which coordinates the California Fire and Rescue Mutual Aid System. The Ops Section coordinated the response through the Mutual Aid System that includes responses to major fires, earthquakes, tsunamis, hazardous materials and other disasters.

Facility Map



1

- | | | | |
|--|--------------------------------|---------------------------------------|---------------------------------|
| 1 Campus Recreation
(Bike Shop, Peak Adventures,
Recreational Sports Office) | 6 Hornet's Nest Food Court | 11 Recreational Sports | 18 The Store |
| 2 The Buzz | 7 Information Desk | 12 Redwood Room | 19 Union Station (Java City) |
| 3 CSUS Ticket Office | 8 KSSU Radio Station | 13 Round Table at the Hive | 20 University Center Restaurant |
| 4 Games Room | 9 Lobby Suite | 14 Jamba Juice | 21 University Union Ballroom |
| 5 Hinde Auditorium | a Cypress Room | 15 Fit HELP/Student Health Connection | 22 Vending Machines |
| | b Sequoia Room | 16 Student Life and Services Center | |
| | 10 Mellow Me Out (Salon & Spa) | 17 The Well Preview Room | |

KEY E = Elevator M = Mens W = Womens U = Unisex S = Atm P = Phone X = Exit

*Burger King Express, Gordito Burrito, Kung Fu Fats, Mother India Express, Dreyer's Hornet Creamery & Da Deli

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