

Application No.: A.25-06-
Exhibit No.: Liberty-08
Witnesses: LIB-8
Various



(U 933-E)

Mountain View Fire Cost Recovery Application

Before the California Public Utilities Commission

Chapter 8: Witness Qualifications

Tahoe Vista, California

June 20, 2025

Liberty-08: Witness Qualifications

Table of Contents

| Witness | Exhibit | Page |
|----------------------------|------------------------|-------------|
| 1. Tom Fee | Liberty-02 | 1 |
| 2. Dr. Gary J. Fowler | Liberty-02 | 29 |
| 3. Andrew Lykens | Liberty-02, Liberty-03 | 34 |
| 4. Stephen Moore | Liberty-03 | 35 |
| 5. Manasa Rao | Liberty-06; Liberty-07 | 36 |
| 6. Darrell Schulte | Liberty-04 | 37 |
| 7. Eric Schwarzrock | Liberty-01; Liberty-02 | 40 |
| 8. Peter Stoltman | Liberty-03 | 41 |
| 9. Dr. A. Leroy Westerling | Liberty-04 | 43 |
| 10. Sharon Yang | Liberty-05 | 70 |

QUALIFICATIONS AND PREPARED TESTIMONY OF TOM FEE

Tom Fee has been involved in the field of Fire, Fraud and Explosive investigations for over 55 years. Mr. Fee is retired from the Pomona Fire Department, where he proudly served over 28 years of service. Mr. Fee spent 2 years as a Firefighter, 2 years as a Fire Inspector, 12 years as a Fire Specialist Investigator, 9 years as a Captain Inspector/Investigator and his last three years as the Fire Chief of the Department. Prior to his retirement from the City of Pomona, Mr. Fee served as the Interim City Administrator for a period of eight months. Mr. Fee is a past president of the California Conference of Arson Investigators and a two-term president of the International Association of Arson Investigators. Since his retirement from the City of Pomona in 1989, he has been licensed as a private investigator and has been conducting fire, fraud and explosive investigations.

Mr. Fee has testified as an expert witness in California Municipal and Superior Courts as well as in the United States Federal Court in Explosives and Fire Origin and Cause. He has met the qualifications of CFI through the State of California, State Fire Training, the International Association of Arson Investigators, the Pro-Board and the California Conference of Arson Investigators. Overall, considering depositions, various types of hearings and court testimony, Mr. Fee has testified in excess of an estimated approximate 500 times as an expert in my field of fire and bomb examination (45 plus years of testimony). He testified the first time as a court accepted expert in fire origin and cause in 1965. Mr. Fee has an extensive background handling both criminal and civil investigations and insurance claim verification work. He has conducted fire origin and cause investigations in California, Arizona, Idaho, Nevada, South Dakota, Florida, Colorado, Iowa, and Texas and, as far away as, Germany and Australia. He has conducted wildland/wildfire origin and cause investigations for forty five plus years ranging in size from a few acres to hundreds of thousands of acres.

The purpose of Mr. Fee's testimony in this proceeding is to sponsor the portions of *Liberty's Mountain View Fire Cost Recovery Application, Exhibit Liberty-02: Ignition*, as identified in the Table of Contents thereto. This material was prepared by Mr. Fee and under his supervision. Insofar as this material is factual in nature, he believes it to be correct, and, insofar as this material is in the nature of opinion or judgment, it represents Mr. Fee's best judgment. Mr. Fee's curriculum vitae accompanies his qualifications and prepared testimony.



1988

1275 North White Avenue
Pomona, California 91768
Calif. P. I. License #14537

FEE INVESTIGATIONS

Specializing In

Fire - Fraud - Explosions



2021

Offices Located At:

Thomas J. Fee, Private Investigator
Telephone: 909-622-2325
tomfee@feeinvestigations.com

6840 Hogg Road
Marsing, Idaho

CURRICULUM VITAE

Of

Thomas J. Fee IAAI-CFI, CCAI-MCFI, Private Investigator

Current as of: March 2025

ACQUIRED SPECIAL SKILLS AND KNOWLEDGE POSSESSED IN THE FIELD OF CIVIL AND CRIMINAL TECHNICAL INVESTIGATIONS:

I have been involved in the field of Fire, Fraud and Explosive investigations for over 55 years. I am retired from the Pomona Fire Department, where I proudly served over 28 years of service. I spent 2 years as a Firefighter, 2 years as a Fire Inspector, 12 years as a Fire Specialist Investigator, 9 years as a Captain Inspector/Investigator and my last three years as the Fire Chief of the Department. Prior to my retirement from the City of Pomona, I served as the Pomona Interim City Administrator for a period of eight months. I am a past president of the California Conference of Arson Investigators and a two-term past president of the International Association of Arson Investigators. **Since my retirement from the City of Pomona in 1989, I have been licensed as a private investigator and have been conducting fire, fraud and explosive investigations throughout the world.**

I have testified as an expert witness in California Municipal and Superior Courts as well as in the United States Federal Court in Explosives and Fire Origin and Cause. **I have met the qualifications of CFI through the State of California State Fire Training, the International Association of Arson Investigators, the Pro-Board, the Institution of Fire Engineers and the California Conference of Arson Investigators.** Overall, considering depositions, various types of hearings and court testimony, I have testified in excess of an estimated 500 times as an expert in the field of fire and bomb investigations (55 plus years of testimony). I testified the first time as a court accepted expert in fire origin and cause in July of 1965. I have an extensive background handling both criminal and civil investigations. I have been involved in a considerable amount of insurance claim verification work. I have conducted fire origin and cause investigations in California, Arizona, Oregon, Idaho, Nevada, South Dakota, Florida, Virginia, Colorado, Iowa, Hawaii, Texas and, as far away as, Germany and Australia.

I have conducted wildland/wildfire origin and cause investigations for forty five plus years. Those fires ranged in size from a few acres to hundreds of thousands of acres. Below is a list of a portion of the wildland fires, 2002 to present, where I have been involved in the origin and cause investigation. The dollar losses in some of these wildland fires ranged up into the billions of dollars, not to mention the lives that were lost.

Grizzly Gulch Fire 2002 – South Dakota - 12,000 plus acres
Battle Creek Fire 2002 – South Dakota – 10,000 plus acres
Hayman Fire 2002 – Colorado - - 137,760 plus acres
Iowa Wildland Fire 2003 – Iowa – Unknown acreage
Firestone Ranch Fire 2004 – California
Wichita Falls Fire (Ringgold) 2006 – Texas – 5,000+ acres
Moonlight Fire 2007 – California - 65,000+ acres
Sayre Fire 2008 – California - 11,262 acres – 489 residences/600 structures total
Rancho Palos Verdes Fire 2009 – California - 230+ acres
Stewart/Cormack Ranch Wildfire 2011 – Texas
PK Complex Fire 2011 – Texas - 140,000+ acres
Corsicana Fire – 2012 - Texas - 30+ acres
Navarro Fire – 2012 - Texas – 2,300 plus acres
Scurry County Complex 2013 – Texas - 300+ acres
Goodenough Fire 2013 – California
Poinsettia Fire 2014 – California - 400+ acres
Bacon Switch Fire 2014 – Texas
Way Fire 2014 – California – 4,031 acres
Bernardo Fire 2014 – California – 1,548 acres
Springwood Fire 2015 – Australia – 299,468 acres, 900+ buildings destroyed, 400 houses
3 Sisters Fire 2015 – Idaho
Butte Fire 2015 – California - 70,868 acres, 475 building destroyed, 343 homes
Arapahoe Forest Fire – 2016 – Colorado
Atlas Peak Fire 2017 – California – 51,624 acres, 921 structures destroyed
La Porte Fire 2017 – California – 6,151 acres
Camelback Fire 2017 – California
Corrine Fire 2017 - California – 1,420 acres
Cherokee Fire 2017 – California – 8,417 acres
Cascade Fire 2017 – California – 9,989 acres, 266 structures destroyed
Lobo Fire 2017 – California – 821 acres, 30 structures destroyed
Pocket Fire 2017 – California – 17,537 acres, 7,500 structures destroyed
Tubbs Fire 2017 – California – 36,806 acres, 100 structures destroyed

Over the past fifty years, I have participated in hundreds of live burn drills. In many of those instances, I was involved as an instructor or coordinator and responsible for setting up and

Thomas Fire 2017 – California – 281,893 acres
Creek Fire 2017 – California – 1,100 acres
Skirball Fire 2017 - California – 422 acres
Black Canyon Fire 2018 – Arizona
Camelback Fire 2018 – Arizona
Holiday Fire 2018 – California – 80 acres
Point Fire 2018 – California – 130 acres
Holy Jim Fire 2018 – California – 23,136 acres
Turkey Fire 2018 – Florida
Woolsey Fire 2018 – California – 96,949 acres
Louisiana Wildfire 2019 – Louisiana
Saddle Ridge Fire 2019 – California – 8,799 acres
Easy Fire 2019 – California – 1,806 acres
Tenaja Fire 2019 – California – 1,926 acres
Skirball Fire #2 2020 – California
Sandalwood 2020 – California – 1,011 acres
Holiday Farm Fire 2020 – Oregon – 173,393 acres
Bobcat Wildland Fire 2020 – California – 106,000 acres
Zogg Fire 2020 – California – 56,338 acres
Silverado Fire 2020 – California – 12,466 acres
Pinehaven Fire 2020 – Nevada – 512+ acres
Archie Creek Fire – Susan, French, Williams Creek 2020- Oregon – 200,000 acres
Coastal Fire, Orange County - 2022 – California
Beachie Creek Fire – 2022 – Oregon
Echo Mountain Fire – 2022 – Oregon
South Obenchain Fire – 2022 – Oregon
Chiloquin Fire – 2022 – Oregon
Two-Four-Two Fire – 2022 – Oregon
McKinney Fire – 2022 – California – 60,400 acres
Santiam Fire – 2021 – Oregon – 400,000 acres
Fairview Fire – 2022 – Hemet, California 7,000 plus acres
Mountain View/Colville Fire – 2020-Coleville, California - 10,000 acres plus
Maui Fire - Hawaii - 2023-Lahaina, Hawaii - 2170 Acres
Verdi/Hill Fire - 2023 – Reno, Nevada – 52 acres
Kidd Fire – Carbon, Texas – 55,000 acres
Trail Fire – Reno Nevada – 350 acres
Mountain Fire – Somis/Camarillo, California 19,904 acres – 132 Structures destroyed
Hurst Fire – Sylmar, California – 799 acres.
Eaton Fire – Alta Dena, California – 14.021 acres

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

igniting the fires. During a redevelopment phase, in the City of Pomona, I set over one hundred fires within a two-year period. Each of those locations was studied both before, during and after the fires to advance my knowledge regarding fire behavior and fire investigation.

For years, I was a **member of the California State Fire Training Advisory Curriculum Board for Arson Investigators** and served as the chairman of the California Conference of Arson Investigators Education Committee. In that position, **I participated in the development of the State Fire Training Curriculum for Fire and Arson Investigation Certification courses 1A, 1B, 2A and 2B.** I was on the Board of Directors of the California Conference of Arson Investigators for twelve years, and continue to be active in that organization.

As a member of the California Fire Chief's organization I was their representative for three years on the Governors Arson Task Force Committee.

I hold a lifetime California Teaching Credential and taught classes at the College level for more than twenty five years in the areas of Fire Suppression, Fire Prevention, Fire/Arson Investigation, Fire Death and Bomb Investigation. While employed by the Pomona Fire Department, I taught "Fire Cause and Origin" to firefighters at the Rio Hondo Fire Academy for more than ten years. I have taught (partial list) at the following colleges; Mt. San Antonio College in Walnut, Rio Hondo College in Whittier, Fresno City College in Fresno, California State Fire Training Academy in Sacramento, California State Fire Training Academy in West Covina and California State Fire Training Academy in Pacific Grove.

One of my assignments, while working for the city of Pomona, was supervising Pomona's Code Enforcement Division. During that time, I gained valuable knowledge in municipal codes involving planning, zoning, building, electrical, mechanical, housing, water, health and etc. I was responsible for enforcement of State, County and local laws relating to all buildings used for public assembly purposes, carnivals and other public gatherings within the City of Pomona. I also supervised a division known as the Neighborhood Improvement through Code Enforcement (N.I.C.E.), a program which dealt with sub-standard buildings and conditions.

For six years, I provided Fire and Life Safety consultation services to the Los Angeles County Fair (Fairplex) in Pomona, California. The facility is used as a convention center and contracts with individual promoters for various types of events throughout the year. The facility is used in excess of fourteen hundred days each year for this type of activity. In addition, the Los Angeles County Fair sets up thousands of exhibits and booths each year during the month of September and hosts the largest County Fair in the United States. Attendance at the Fair, in September, each year usually exceeds 1.5 million people. The interim events at Fairplex draw an additional one million people each year. I have been very active in developing safety standards relating to traffic, crowd control, vendor move-in/move-out procedures and general life safety throughout the grounds.

I developed an Emergency/Disaster Procedural Manual for Fairplex during my tenure with them and in 1988 I revised the entire Emergency/Disaster Manual for the City of Pomona.

I am a Certified Fire Investigator (CFI) per the standards set forth by; the California Conference of Arson Investigators, the International Association of Arson Investigators, the Pro-Board, Institution of Fire Engineers and I meet the standards for a Professional Fire Investigator put forth in NFPA 1033.

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

EDUCATION:

I have completed approximately sixty college units, that required for an AA Degree at the time, however I have never applied to the degree program. The following is a partial list of college courses and other classes I have completed which relate to the investigative field;

| | |
|---|---------------------------------------|
| Public Speaking* | Fire Management * |
| Psychology * | Instructor Training 1A * |
| Fire Equipment Systems * | Employee/Employer Relations * |
| Fire Cause Investigation * | Fire Apparatus & Pump Maintenance* |
| Advanced First Aid * | Introduction to Fire Protection * |
| Fire Hydraulics * | Introduction to Fire Prevention * |
| Fire Laws and Related Ordinances * | Explosive Ordinance/Reconnaissance * |
| Fire Equipment Systems * | Instructor Training 1B * |
| Advanced Criminal Investigation * | Personnel Management * |
| Fundamentals of Fire Science * | Records and Reports * |
| Fundamentals of Public Administration * | Fire Hawk Program |
| Safety & Handling / Marine Explosives | Administrative Justice * |
| Hazardous Device Disposal * | Report Writing * |
| Interview and Interrogation * | Advanced Interrogation * |
| Advanced Report Writing Skills * | Creative Writing * |
| Visual Investigation Analysis * | Child Abuse * |
| Counter Terrorists Investigation | Emergency Care of the Sick/injured* |
| Advanced Fire Prevention * | Fire Company Organization/Procedures* |
| Electrical Fire Investigation * | Structural Fire Investigation * |
| Vehicle Fire Investigation | Advanced Firearms Handling * |
| Link Analysis | |

**Most of the above classes were full semester, 60 hour, classes that I attended at the Jr. College level. The remainders were specialized classes taught by various agencies in Government.*

I HAVE COMPLETED THE FOLLOWING FIRE/EXPLOSIVE INVESTIGATION RELATED SEMINARS AND WORKSHOPS:

YEAR 1964:

Advanced Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators Association.

Advanced Arson Investigation Seminar (June);

Presented by the California Conference of Arson Investigators Association at Fresno City College.

YEAR 1965:

Advanced Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators Association.

Advanced Arson Investigation Seminar (June);

Presented by the California Conference of Arson Investigators Association at Fresno City College.

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

YEAR 1966:

Advanced Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators Association.

Advanced Arson Investigation Seminar (June);

Presented by the California Conference of Arson Investigators Association at Fresno City College.

YEAR 1967:

Arson & Fire Investigation Seminar;

Presented by the University of California Extension in cooperation with the Bureau of Industrial Education, State Department of Education & California Fire Chief's Association.

YEAR 1968:

Arson & Fire Investigation Seminar;

Presented by the California Department of Education, University of California in Davis California.

Arson & Fire Investigation Seminar;

Presented by California Department of Education, University of California at Riverside California.

YEAR 1969:

Explosive Ordnance Reconnaissance Class (Explosive and Sabotage Devices);

Presented by the Department of the Army.

YEAR 1971:

Fire & Arson Investigation Seminar;

Presented by the State of California Department of Justice, the Commission on Peace Officers Standards & Training Association, in cooperation with the State of California Department of Education, Fire Service Training Program and the California Conference of Arson Investigators Association.

Fire and Arson Workshop;

Presented by the Northern California Investigators Association in Sacramento, California.

Fire and Arson Investigation Seminar;

Presented by the State of California Department of Justice, the Commission on Peace Officer Standards and Training.

YEAR 1972:

Arson and Fire Investigation Advanced Seminar;

Presented by the California Fire Chief's Association in cooperation with State of California Department of Education, Fire Service Training Program and California Conference of Arson Investigators Association.

Bomb Scene Investigation and Explosives Handling School;

Presented by the Department of the Treasury, Bureau of Alcohol and Firearms.

Advanced Investigation and Interrogation;

Presented at Mount San Antonio College.

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

YEAR 1973:

Hazardous Device Disposal;

Presented at Mount San Antonio College.

P.C. Peace Officers Arrest and Procedures;

Presented at Mount San Antonio College

P.C. Peace Officers Firearms;

Presented at Mount San Antonio College.

Advanced Fire and Arson Investigation;

Presented by the California State Department of Education, Bureau of Industrial Education, Fire Service Training Program.

Explosive Technician and Investigation Course;

Presented by the California Police Chief's Association.

YEAR 1974:

Second Annual National Explosive Ordnance Conference;

Presented by Sacramento County Sheriff's Department.

Hazardous Device Disposal Course # 2;

Presented at Mount San Antonio College.

Fire Investigators Academy;

Presented by the California Fire Chief's Association, in cooperation with State of California Department of Education, Fire Service Training Program and California Conference of Arson Investigators Association.

YEAR 1975:

Advanced Fire Investigation I;

Presented by the California Conference of Arson Investigators Association.

Advanced Investigation Academy;

Presented at Fresno City College.

Identification and Disposal of Explosive Ordnance;

Presented by the U.S. Marine Corps at Camp Pendleton, California.

Basic Arson Investigation;

Presented by the California State Fire Marshal's Office, Arson and Bomb Investigation Unit.

Fire Investigator's Academy III;

Presented by the California Fire Chief's Association, California Conference of Arson Investigators, State of California Department of Education and the Fire Service Training Program.

YEAR 1976:

Arson Workshop II;

Presented at Fresno City College.

I.A.B.T.I. Training Seminar;

Presented by the International Association of Bomb Technicians and Investigators in Chula Vista, California.

Advanced Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators Association.

Explosive Demonstration Course;

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

Presented by the Department of the Navy in El Toro, California.

Advanced Arson Investigation Seminar (June);

Presented by the California Conference of Arson Investigators Association at Fresno City College.

YEAR 1977:

Hazardous Devices Course;

Hazardous Devices Technician Training; presented by the U.S. Army Missile & Munitions Center and School - Redstone Arsenal in Huntsville, Alabama. (April 3rd through 22nd, 1977)

Advanced Explosives & Terrorist Activities;

Presented by the International Association of Bomb Technicians and Investigators in South Lake Tahoe, California.

Advanced Arson Investigation;

Presented by the California Conference of Arson Investigators Association through Santa Ana College.

YEAR 1978:

Advanced Arson Investigation;

Presented by the Sonora Police Department in Sonora, California.

Basic Fire and Arson Investigation;

Presented by Columbia Jr. College.

Introduction to Fire Science;

Presented by the Santa Ana Special Fire Academy.

Fire and Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators though Columbia Jr. College.

Advanced Fire and Arson Investigation Seminar (June);

Presented by the California Conference of Arson Investigators in Sacramento, California.

YEAR 1979:

Advanced Improvised Explosive Devices Techniques & Terrorist Activities;

Presented by the International Association of Bomb Technicians and Investigators in Anaheim, California.

P.C. 832 Peace Officers Firearms Course;

Presented by the Pomona Police Department in Pomona, California.

YEAR 1980:

Advanced Fire Investigation;

Presented by the California Conference of Arson Investigators in Anaheim, California.

YEAR 1982:

Insurance Fraud Conference;

Presented by the International Association of Insurance Investigators

Safety & Handling of Marine Explosives;

Presented by Brocco, Inc.

Advanced Fire Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Mace Class;

Presented by the Pomona Police Department in Pomona, California.

YEAR 1983:

Fire & Arson Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California

Fire Investigation III;

Presented by the California Fire Academy at Asilomar

Certified Instructor - Fire Investigation 1;

Presented by the California State Board of Fire Services

Auto Fire Investigation/Instructor Staff;

Presented by the San Bernardino County Fire Arson Investigation Association

Fire/Arson Investigation (June);

Presented by the California Conference of Arson Investigators

YEAR 1984:

Bomb Scene Investigation Training;

Presented by the Department of the Treasury Bureau of Alcohol, Tobacco and Firearms in El Toro, California

Fire/Arson Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California.

YEAR 1985:

Advanced Explosive Technology, Bombing & Terrorism Trends;

Presented by the International Association of Bomb Technicians and Investigators in Ontario, California

Officer Safety & Field Tactics;

Presented by the California Specialized Training Institute (Criminal Justice) in San Luis Obispo, California

Advanced Improvised Explosive Devices & Terrorist Activities;

Presented by the International Association of Bomb Technicians and Investigators in Reno, Nevada

Fire/Arson Investigation;

Presented by the California Conference of Arson Investigators in Fresno, California.

YEAR 1986:

Fire/Arson Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California

Advanced Improvised Explosive Devices & Terrorist Activities;

Presented by the International Association of Bomb Technicians and Investigators in Philadelphia, Pennsylvania.

Fire/Arson Investigation (June);

Presented by the California Conference of Arson Investigators in Fresno, California

YEAR 1987:

Fire/Arson Investigation (January);

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

Presented by the California Conference of Arson Investigators in Fresno, California
Fire/Arson Investigation (June);

Presented by the California Conference of Arson Investigators in Fresno, California
Advanced Terrorism and Related Explosives Update Seminar;

Presented by the International Association of Bomb Technicians and Investigators in Orlando, Florida.

YEAR 1988:

Fire/Arson Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California
Advanced Fire Investigation;

Presented by the California Conference of Arson Investigators in San Jose, California
Fire/Arson Investigation (June);

Presented by the California Conference of Arson Investigators in Fresno, California

YEAR 1989:

Fire/Arson Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California
Fire/Arson Investigation (June);

Presented by the California Conference of Arson Investigators in Fresno, California

YEAR 1990:

Fire/Arson Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California
Fire/Arson Investigation (June);

Presented by the California Conference of Arson Investigators in Fresno, California

YEAR 1991:

Fire/Arson Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California
Fire/Arson Investigation (July);

Presented by the California Conference of Arson Investigators in Fresno, California

YEAR 1992:

Fire/Arson Investigation (January);

Presented by the California Conference of Arson Investigators in Fresno, California
IAAI Arson Seminar (May);

Presented by the International Association of Arson Investigators in Minneapolis, Minnesota.

Fire/Arson Investigation Seminar - Vehicle Fires - (July);

Presented by the California Conference of Arson Investigators in Fresno, California

Year 1993:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in Fresno, California
Fire/Arson Investigation Seminar (July);

Presented by the California Conference of Arson Investigators in Fresno, California

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Year 1994:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in Fresno, California

Arson & Fire Investigation Class (Evidence);

Presented by John DeHaan, California Department of Justice in Riverside (8 hours)

Arson & Fire Investigation Seminar (July);

Presented by the California Conference of Arson Investigators in Fresno, California

Year 1995:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in Fresno, California

Fire/Arson Investigation Seminar (May);

Presented by the International Association of Arson Investigators

Year 1996:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in Fresno, California

Fire Investigation 2A Class (January);

Instructor for Rio Hondo College, Whittier, California - Sanctioned through California State Fire Training.

Fire Investigation 2B Class (February);

Instructor for Rio Hondo College, Whittier, California - Sanctioned through California State Fire Training.

Fire/Arson Investigation Seminar (July);

Presented by the California Conference of Arson Investigators in Fresno, California

Year 1997:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

Fire/Arson Investigation Seminar (May);

Presented by the International Association of Arson Investigators in Toronto, Canada

Fire/Arson Investigation Seminar (July);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

Year 1998:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

Fire/Arson Investigation Seminar (May);

Presented by the International Association of Arson Investigators in Portland, Oregon

Fire/Arson Investigation Seminar (July);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

Year 1999:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Fire/Arson Investigation Seminar (May);

Presented by the International Association of Arson Investigators in Las Vegas, Nevada

Fire/Arson Investigation Seminar (July);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

Year 2000:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

51st Annual IAAI Fire/Arson Investigation Training Seminar (May 15- 19);

Presented by the International Association of Arson Investigators in Grand Rapids, Michigan

Fire/Arson Investigation “Live Burn” Seminar (July);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California
(tested)

Year 2001:

Fire/Arson Investigation Seminar (January) (Case Preparation and Courtroom Presentation);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California
(tested).

52nd Annual IAAI Fire/Arson Investigation Training Seminar (May 15- 19);

Presented by International Association of Arson Investigators in Atlantic City, New Jersey.

Fire/Arson Investigation Seminar (July) (Advanced Investigation and Legal Issues);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California
(tested).

Year 2002:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in Seaside/Monterey, California
(tested)

53rd Annual IAAI Fire/Arson Investigation Training Seminar (May 20- 24);

Presented by International Association of Arson Investigators in Milwaukee, Wisconsin.

Fire/Arson Investigation Training “Live Burn” Seminar (July);

Presented by the California Conference of Arson Investigators in Seaside/Monterey, California
(Field Burn Exercise) (tested)

Year 2003:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in Seaside/Monterey, California
(tested)

54th Annual IAAI Fire/Arson Investigation Training Seminar (May 20- 24);

Presented by International Association of Arson Investigators in Reno, Nevada. (Wildfire
Investigation)

Fire/Arson Investigation Training “Live Burn” Seminar (July);

Presented by the California Conference of Arson Investigators in Seaside/Monterey, California
(tested)

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Year 2004:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in Seaside/Monterey, California (tested)

55th Annual IAAI Fire/Arson Investigation Training Seminar (April 19- 23);

Presented by International Association of Arson Investigators in Saint Louis, Missouri.

Fire/Arson Investigation Seminar (July);

Presented by the California Conference of Arson Investigators in Seaside/Monterey, California

Year 2005:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in San Louis Obispo, California (tested)

IAAI Web Based Seminar;

(2 hours) - MagneTek: A Case Study in the Daubert Challenge (tested) Presented by Guy E. Burnette Jr. (CFI Trainer. Net)

56th Annual IAAI Fire/Arson Investigation Training Seminar (April 25- 29);

Presented by International Association of Arson Investigators in Washington D. C.

Fire/Arson Investigation Seminar (July);

Presented by the California Conference of Arson Investigators in San Louis Obispo, California (tested)

Year 2006:

Fire/Arson Investigation Seminar (January);

Presented by the California Conference of Arson Investigators in San Louis Obispo, California (tested)

57th Annual IAAI Fire/Arson Investigation Training Seminar (May 7-12);

Presented by International Association of Arson Investigators in Denver, Colorado. (Tested)

Fire/Arson Investigation Seminar (July 17-19);

Presented by the California Conference of Arson Investigators in San Louis Obispo, California (tested)

Year 2007:

IAAI Kansas Chapter Regional Seminar (February 13-15);

Presented by Kansas Chapter of the International Association of Arson Investigators in Topeka, Kansas. (Forensic Fire Scene Reconstruction) (tested)

Fire/Arson Investigation Seminar (March 26-28);

Presented by the California Conference of Arson Investigators in San Louis Obispo, California (tested)

58th Annual IAAI Fire/Arson Investigation Training Seminar (June 30–May 5);

Presented by the International Association of Arson Investigators in Victoria, British Columbia. (tested)

AHAM Seminar (June 20–22);

Small Appliance Fire Seminar, presented by the International Association of Arson Investigators and the Association of Home Appliance Manufacturers of America in Arlington, Texas. (tested)

IAAI Tennessee Chapter Fire Investigation Training Seminar (August 6-10);

Presented by the Tennessee Chapter of IAAI in Pigeon Forge, Tennessee. (tested)

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

IAAI North Carolina/South Carolina Chapters Fire Investigation Training Seminar (October 22-24);

Presented by the North and South Carolina Chapters of IAAI in Myrtle Beach, South Carolina. (tested)

Fire/Arson Investigation Seminar (November 5-7)

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (tested)

IAAI Texas Chapter Fire Investigation Training Seminar (November 15-17);

Presented by the Texas Chapter of IAAI in South Padre Island, Texas. (tested)

Year 2008:

Fire/Arson Investigation Seminar (March 3-5);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (tested) (Seminar Coordinator)

59th Annual IAAI Fire/Arson Investigation Training Seminar (April 28-June 2);

Presented by the International Association of Arson Investigators in Denver, CO. (tested) (Seminar Coordinator)

Fire/Arson Investigation Seminar (November 3-5);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (tested) (Seminar Coordinator)

Year 2009:

Fire/Arson Investigation Seminar (March 30-31 and April 1st);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (Hands on field burn) (tested) (Seminar Coordinator)

60th Annual IAAI Fire/Arson Investigation Training Seminar (May 11-15);

Presented by the International Association of Arson Investigators in Arlington, Texas. (40 hours – Non-Tested)

Presented IAAI; the “Lifetime Membership Award” in May of 2009.

Fire/Arson Investigation Seminar (November 9-11);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California. (tested)

Presented by CCAI; “Officer of the Year” award.

Year 2010:

Fire/Arson Investigation Seminar (March 22-24));

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (Hands on field burn) (tested) (Seminar Coordinator)

61st Annual IAAI Fire/Arson Investigation Training Seminar (May 17-21);

Presented by the International Association of Arson Investigators in Orlando, Florida. (36 hours - tested) (Seminar Coordinator)

Presented the “George H. Parker Distinguished Service Award” on May 18, 2010

Fire/Arson Investigation Seminar (November 8-10);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (tested) (Seminar Coordinator)

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Year 2011:

Fire/Arson Investigation Seminar (March 27-30);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (20 hours - tested)

62nd Annual Fire/Arson Investigation Training Seminar (May 1-6);

Presented by the International Association of Arson Investigators in Las Vegas, Nevada. (34 hours - tested) (Seminar Coordinator)

CFITrainer.net – On line training - Utilizing NFPA 1033 and 921 - (June 14);

Presented by the International Association of Arson Investigators. (4 hours - tested)

Fire/Arson Investigation Seminar (November 7-9);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (20 hours - tested)

Year 2012:

Fire/Arson Investigation Seminar (March 26-28);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (20 hours - tested)

63rd Annual Fire/Arson Investigation Training Seminar (April 23- 27);

Presented by the International Association of Arson Investigators in Dover, Connecticut. (36 hours - tested) (Seminar Coordinator)

CFITrainer.net – On line training - Ethics and the Fire Investigator (May 16);

Presented by the International Association of Arson Investigators. (3 hours - tested)

Renewal of IAAI-Fire Investigator Certification–Certificate #22-125–Expires 7-3-2022

Renewal of Pro-Board Fire Investigator Certification – Certificate #312429–Expires 7-3-2022

Fire/Arson Investigation Seminar (October 29-31);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (20 hours - tested)

Year 2013:

Fire/Arson Investigation Seminar (March 25-27);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (20 hours - tested)

64th Annual Fire/Arson Investigation Training Seminar (May 6-10);

Presented by the International Association of Arson Investigators in Orlando, Florida. (36 hours - tested) (Seminar Coordinator)

CFITrainer.net – On line training - A Ventilation-Focused Approach to the Impact of Building Structures and Systems on Fire - (July 10, 2013);

Presented by the International Association of Arson Investigators. (4 hours - tested)

Fire/Arson Investigation Seminar (November 18-20);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (20 hours - tested)

Year 2014:

Fire/Arson Vehicle Investigation Seminar (March 31–April 2);

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (20 hours - tested)

65th Annual Fire/Arson Investigation Training Seminar (April 14-18);

Presented by the International Association of Arson Investigators in Las Vegas, Nevada. (40 hours - tested) (Seminar Coordinator)

AER-Explosives/Bomb Threat Assessment for the Fire/Rescue Service (May 10);

Presented by Central Valley Arson Investigators Roundtable #7/California Conference Arson Investigators in Tulare, California

Residential Electrical Systems Training Program (June 6);

Presented by the International Association of Arson Investigators on CFITrainer.Net. (4 hours - tested)

Renewal of CCAI Fire Investigator Certification – Certificate # 551 – Expires 7-17-2017

Fire/Arson Investigation Seminar (November 10-12);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California (20 hours - tested)

Year 2015:

Fire/Arson Investigation Seminar (March 30-April 3);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

66th Annual Fire/Arson Investigation Training Seminar (May 15-22);

Presented by the International Association of Arson Investigators in Chicago, Illinois. (32 hours - tested) (Seminar Coordinator)

Effective Investigation and Testimony (June 4);

Presented by the International Association of Arson Investigators on CFITrainer.Net. (3 hours - tested)

Fire/Arson Investigation Seminar (November 2-4);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California

Year 2016:

IAAI-UK Fire/Arson Investigation Training Seminar (January 25-26);

Presented by the International Association of Arson Investigators UK Chapter in London, England. (16 hours - tested)

Fire/Arson Investigation “Burn to Learn” Training Seminar (March 7-9);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California. (20 hours – tested)

67th Annual Fire/Arson Investigation Training Seminar (April 24-29);

Presented by the International Association of Arson Investigators in Orlando, Florida. (32 hours - tested) (Seminar Coordinator)

Investigating Motor Vehicle Fires (June 9);

Presented by the International Association of Arson Investigators on CFITrainer.Net. (4 hours - tested)

Knowledge 1 Motor Vehicle Fires Tier 1 (June 9);

Presented by the International Association of Arson Investigators on CFITrainer.Net. (8 hours - tested)

IAAI Motor Vehicle Fire Credential Endorsement – Expires 7-3-2020

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

Fire/Arson Investigation Live Burn Training Seminar (Oct 17-19);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(20 hours – tested)

Year 2017:

Asbestos Awareness Training (2 hours - tested) (January 7, 2017)

Presented by Safety UNLIMITED, Inc. in accorded with Federal OSHA and EPA Regulations

Fire/Arson Investigation Training Seminar (March 6-8);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(20 hours – tested)

CCAI Master Certified Fire Investigator Certification – Issued: March 17, 2017

68th Annual Fire/Arson Investigation Training Seminar (April 6-15);

Presented by the International Association of Arson Investigators in Las Vegas, Nevada. (32 hours - tested) (Seminar Coordinator)

Fire/Arson Investigation Training Seminar (November 13-15);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(20 hours – tested)

Year 2018:

Fire/Arson Investigation Training Seminar (March 5-8);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

69th Annual Fire/Arson Investigation Training Seminar (May 20-25);

Presented by the International Association of Arson Investigators in Frisco, Texas. (32 hours - tested) (Seminar Coordinator)

Fire/Arson Investigation Training Seminar (September 23-27);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

Year 2019:

Fire/Arson Investigation Training Seminar (February 25-28);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

70th Annual Fire/Arson Investigation Training Seminar (May 15-19);

Presented by the International Association of Arson Investigators in Jacksonville, Florida. (32 hours - untested) (Seminar Coordinator)

Fire/Arson Investigation Training Seminar (September 23-26, 2019);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

Year 2020:

Fire/Arson Investigation Training Seminar (February 24-27);

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

Fire/Arson Investigation Training Seminar (September 28-October 1);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

Year 2021:

Fire/Arson Investigation Training Seminar (February 22-25);

Presented Virtually by the California Conference of Arson Investigators from Chino Valley Fire Department Training Facility – Chino, California. (28 hours – tested)

Fire/Arson Investigation Training Seminar (September 27-30);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

Year 2022:

Fire/Arson Investigation Training Seminar (June 6-10);

Presented Virtually by the California Conference of Arson Investigators from Chino Valley Fire Department Training Facility – Chino, California. (20 hours – tested)

The Deposition Part 2: Questioning Tactics and Affective Responses (June 21, 2022);

Presented by the International Association of Arson Investigators on CFITrainer.Net. (3 hours - tested)

Basic Electricity (June 28, 2022);

Presented by the International Association of Arson Investigators on CFITrainer.Net. (4 hours - tested)

Fire/Arson Investigation Training Seminar (October 24-27, 2022);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

Year 2023:

Fire/Arson Investigation Training Seminar (February 27-March 2, 2023);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

Fire/Arson Investigation Training Seminar (October 16-19, 2023);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – tested)

Year 2024:

Fire/Arson Investigation Training Seminar (October 21-24, 2024);

Presented by the California Conference of Arson Investigators in San Luis Obispo, California.
(28 hours – non-tested)

CERTIFICATIONS:

CCAI Fire Investigator Certification (MCFI) – Certificate # 551 – Expires 7-7-2026

IAAI-Fire Investigator Certification – Certificate #22-125 – Expires 7-3-2027

CURRICULUM VITAE

Of

Thomas J. Fee, CCAI-CFI

Continued

IAAI Motor Vehicle Fire Credential Endorsement – Expires 7-3-2027

Renewal of Pro-Board Fire Investigator Certification – Certificate #400317 – Expires 7-3-2025

Institution of Fire Engineers – Graduate #00061624 – IFE-CFI - Expires 1-2025

DEPOSITION AND COURT TESTIMONY:

The following is a limited amount of information (partial list) related to cases where I have testified either in court or deposition since 1990. Prior to 1990, I worked for the City of Pomona and testified hundreds of times; however none of the information, regarding those cases, was tracked at the time and cannot be located without thousands of hours of research.

Fee Investigations File #1029 – April 29, 1991

- Gaebel Watkins & Taylor 14222 South Prairie Avenue in Hawthorne (Case # Dempsey vs. Maryland Casualty) (Deposition Testimony)

Fee Investigations File #1034 July 1, 1991

- Breidenbach, Swainston, Crispo & Way Color Tex Dying and Finishing (Travelers vs. United Air Specialists) (Deposition Testimony)

Fee Investigations File #1053 – 11-92

- Johnson, O'Connell & McCarthy (Case - Inland Empire vs. Campbell Heating & Air Conditioning) – (Deposition Testimony)

Fee Investigations File #1058 – 12-02-92

- Case # Palm Canyon Prosperities vs. Ishikawa, Kiyoshi & Taruka) (Deposition Testimony)

Fee Investigations File #1067 – 3-03-93

- Southern California Edison Company vs. Unknown – (file #CI 9302545N) (Testimony at an Arbitration Hearing)

Fee Investigations File #1082 – 10-5-93

- State Farm vs. Unknown (file #55 C 192 326) – (Deposition)

Fee Investigations File #1108 – 7-94

- US Public Defenders Office (Case # People vs. Jorge Camacho) (Trial Testimony)

Fee Investigations File #1134 – 3-24-95

- Gene Osko (Case # People of California vs. Chris Robert Hawks) (Trial Testimony)

Fee Investigations File #1135 – 3-27-95

- Southern California Edison (Case # State of California vs. Southern California Edison) Winchester Fire – (Deposition Testimony)

Fee Investigations File #1138 – 4-18-95

- Southern California Edison (Joe's Plastics vs. Southern California Edison) (Deposition and Court Testimony)

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Fee Investigations File #1139 – 5-22-95

- Scottsdale Insurance Company (Case #384590) – (Deposition Testimony)

Fee Investigations File #1144 – 7-6-95

- Scottsdale Insurance Company (Case #389726) – (Deposition Testimony)

Fee Investigations File #1147 - 9-11-95

- Kossler & Hamby (Case # Soloqua vs. Paramount Swap Meet) – (Deposition Testimony)

Fee Investigations File #1163 – 4-30-96

- Southern California Edison Company (Case # Growers vs. Southern California Edison Company) Deposition and (Trial Testimony) (Grand Fire)

Fee Investigations File #1177 – 12-20-96

- Gene Osko (Case # People vs. Richard Dominguez) – (Trial Testimony)

Fee Investigations File #1138 – 12-20-96

- Southern California Edison Company vs. Joe's Plastics – (Deposition Testimony)

Fee Investigations File #1179 1-03-97

- Attorney Ron Pearson (Case # Topper vs. Unknown) – (Deposition Testimony)

Fee Investigations File #1138 – 1-16-97

- Joe's Plastics vs. Southern California Edison Company – (Trial Testimony)

Fee Investigations File #1194 – 5-17-97

- Attorney Linda Baltram (Case # Blake vs. Duraflame, Inc.) – (Deposition Testimony)

Fee Investigations File #2014 – 8-29-97

- Attorney Pete Navarro –Public Defender's Office (Case # People vs. Juvenile) – (Trial Testimony)

Fee Investigations File #2024 – 12-18-97

- Southern California Edison Company – Calabasas Fire –Wildland – (Deposition Testimony)

Fee Investigations File #2077 – 11-19-98

- Southern California Edison Company – Sterns Warf in Santa Barbara – Pier fire – (Deposition Testimony)

Fee Investigations File #2141 - 12-10-99

- Southern California Edison Company - 9627 West Avenue "B" Street in Lancaster, California – (Deposition Testimony)

Fee Investigations File #2144 – 12-16-99

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

- Southern California Edison Company – James Birmingham vs. Southern California Edison – Wildland – (Deposition Testimony)

Fee Investigations File #2162 – 4-24-00

- RFKCO – Rigley's Supermarket Fire – (Trial Testimony)

Fee Investigations File #2180 – 8-14-00

- State Farm Insurance Company – 30 Glacier track Mount Baldy, California - Residential – (Trial Testimony)

Fee Investigations File #2229 – 10-01-01

- Rudy Staubs – 10960 Leolang Avenue in Sunland, California - Structure – (Deposition Testimony)

Fee Investigations File #2234 – 11-08-01

- Attorney Bernard Schwatz – Riverside, California – Criminal – (Trial Testimony)

Fee Investigations File #2252 – 3-26-02

- Dave Chovanec – Fox Studios in Mexico – (Deposition Testimony) – Wrongful Death Investigation

Fee Investigations File #2257 – 4-6-02

- Southern California Edison Company – Santa Barbara Pier Fire in Santa Barbara, California – (Deposition Testimony)

Fee Investigations File #2268 – 6-02

- Attorney Williamson – Fire in Denver, Colorado – Wildland – (Court Testimony)

Fee Investigations File #2271 – 7-15-02

- Attorney Gary Jensen/Black Hills Power – Grizzly Gulch fire in Black Hills, South Dakota – Wildland – (Deposition Testimony)

Fee Investigations File #2305 – 8-6-03

- Attorney David Pillemer – McAllister vs. Holden – Motor-home fire – (Deposition Testimony)

Fee Investigations File #2336 – 2-23-04

- Southern California Edison Company – Foamex vs. Southern California Edison Company – Pole fire/Structure – (Deposition Testimony)

Fee Investigations File #2341 – 4-13-04

- Southern California Edison (Hguyen Hung vs. Southern California Edison) (Deposition) Testimony – 310 South Center Street in Santa Ana, California – Pole/Structure

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Fee Investigations File #2344 – 5-24-04

- Carlson, Calladine & Peterson LLP (Case ABC News vs. Lakeside) (Deposition Testimony)

Fee Investigations File #2346 – 6-1-04

- Attorney Amy Schuldt/Chris Palmer's Office – Elm Springs, South Dakota – Hay fire – (Trial Testimony)

Fee Investigations File #2369 – 2-8-05

- Attorney Chris Palmer – Cedar Canyon, South Dakota – Wildland – (Trial Testimony)

Fee Investigations File #2470 – 6-11-07

- People vs. Quiroz – (Trial Testimony) San Bernardino Courts – Criminal – Attorney Peter Schlueter

Fee Investigations File #2468 – 11-13-07

- Richard Arko, Attorney for Southern California Edison – (Deposition and Trial Testimony)

Fee Investigations File #2410 - 12-03-07

- Attorney Aron Laub - State of California vs. Timothy Komonyi – (Trial Testimony)

Fee Investigations File #2392 - 1-5-08

- Victor Alvarez, Willie Fuller vs. Tony Aguiar, Ruiz Merillo (State Farm case) - Structure – (Trial Testimony)

Fee Investigations File #2409 February 14, 2008

- Cook-Kettler vs. Southern California Edison - - Structure – (Deposition)

Fee Investigations File #2529 February 21, 2008

- Attorney Celine Bonillo – State of California vs. Diego Daniels – (Trial Testimony)

Fee Investigations File #2438 August 1 and 6, 2008

- Attorney Al De La Cruz of Manning & Marder in San Diego - Renaissance Restoration vs. Harbor Manufacturing (Deposition)

Fee Investigations File #2396 August 28, 2008

- Attorney Margaret Miglietta of Cummins & White, LLP in Newport Beach - First National vs. County Line – (Deposition)

Fee Investigations File #2403 March 23, 2009

- Sharon Gaston and David Gaston vs. TXU Electric Company now known as Oncor Electric Delivery Company, Energy Future Holdings Corp. - Wildland – (Deposition Testimony)

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

Fee Investigations File #2354 November 4, 2009

- Attorney Jorge Martinez of Taylor Anderson LLC. Denver, Colorado - USDA vs. Firestone Ranch – (Deposition)

Fee Investigations File #2608 December 10, 2009

- Attorney Jonathan Mandell, Alhambra, California - People vs. Ken Toh - (Trial Testimony)

Fee Investigations File #2583 March 14, 2011

- Attorney Nancy Sharp, Kern County Public Defender's Office, Bakersfield, California - People vs. Scott Brus – (Trial Testimony)

Fee Investigations File #2579 July 12, 2011

- Attorney Guy Gruppie, Murchison & Cumming LLP, Los Angeles Superior Court North Valley District Case #PC048300 Hartford Causality Insurance Company vs. American Power Conversion – (Deposition)

Fee Investigations File #2597 August 2, 2011

- Attorney Don Zell, Irvine, California – Southern California Edison vs. Preciado – (Deposition)

Fee Investigations File #2597 October 21, 2011

- Attorney Don Zell, Irvine, California – Ventura Superior Court Case #56-2010-0382014-CU-PP-VTA Preciado vs. Southern California Edison vs. – (Trial Testimony)
Vegetation Fire

Fee Investigations File #2785 December 1, 2011

- San Bernardino County Public Defender Eric Loftman – Superior Court, Criminal Case# FSB1104250 Pipe Bomb - People v. Travis Lockwood. (Trial Testimony)

Fee Investigations File #2686 April 5, 2012

- Attorney Don Zell, Irvine, California – Southern California Edison vs. Van Allen (Deposition). LA County Case No. KC057131

Fee Investigations File #2823 May 11, 2012

- Attorney Gail Block, Beverly Hills Public Defender's Office, Superior Court Beverly Hills, California Case# SA080325 People vs. Jimmy Jones (Trial Testimony)

Fee Investigations File #2628 – November 29, 2012

- Attorney Steven D. Turner, Jones Turner, LLP, Irvine, California, Superior Court Torrance, California Case# YC063549 Affiliated FM Insurance vs. Amtech Elevator Services (Deposition)

Fee Investigations File #2711 – July 8, 2013

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

- Attorney Craig French, Marshall French & De Grave, Irvine, California, (Deposition), Case# CIV DS 1014173 Hartford Casualty Insurance Company v. Tri-County Dental Supply, Inc., Image Works Corporation, AFP Imaging Corporation.

Fee Investigations File #2666 – July 25, 2013 – Volume #1

- Attorney John Horwitz, Schaffer, Lax, McNaughton, Chen Law Firm, Los Angeles, California – (Deposition) - Case #YC065387 – City of Rancho Palos Verdes and Takashi Nakamura and Toshiko Nakamura vs. Southern California Edison Company – deposition taken by Richard Watson, Gershon Law Firm 355 South Grand Avenue, 40th floor Los Angeles California 90071

Fee Investigations File #2889 – November 5, 2013

- Attorney Irwin R. Miller, Irwin Miller Law Firm, Oxnard, California – (Deposition) – Case #56-2010-00382014-CU-PP-VTA – Irwin R. Miller vs. Edward L. Clark, Jr. – Deposition taken at 17141 Pleasant Circle, Huntington Beach, California 92649

Fee Investigations File #2891 – January 17 and 21, 2014

- Attorney Anousheh Elmi, Los Angeles County Public Defender's Office, Los Angeles, California – (Trial Testimony) – Case #BA-401241 – People vs. Richard Gomez – Fire located at 6010 Gloucester Street in Los Angeles, California

Fee Investigations File #2604 – February 7, 2014

- Law Offices Engstrom, Lipscomb & Lack, Los Angeles, California – (Deposition) – Case #BC457025 – Oakridge, LTD vs Southern California Edison Company – Wildland Fire

Fee Investigations File #2666 – February 21, 2014 – Volume #2

- Attorney John Horwitz, Schaffer, Lax, McNaughton, Chen Law Firm, Los Angeles, California – (Deposition) - Case #YC065387 – City of Rancho Palos Verdes and Takashi Nakamura and Toshiko Nakamura vs. Southern California Edison Company – deposition taken by Richard Watson, Gershon Law Firm 355 South Grand Avenue, 40th floor Los Angeles California 90071

Fee Investigations File #2855 – March 13, 2015

- Attorney Mark S. Roth and Philip J. Berens, Cozen O'Connor Law Firm, Los Angeles, California – Declaration – Case #BC508426 – County of Los Angeles Federated Service Insurance Company vs. Chava Distribution & Salvador Juarez

Fee Investigations File #3028 – March 16, 2015

- Attorney Jonathan Mandel, Mandel Law Firm, Encino, California – Declaration – Case #LA074978 – City of Beverly Hills, California, State of California vs. Dontai Everidge,

Fee Investigations File #2881 – April 9, 2015

- Richard Arko, Attorney for Southern California Edison – (Hisham Al-Kahmteeb vs. Southern California Edison) Case # 302012-00596896-CU-NP-CJC/Orange County - (Deposition Testimony)

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Fee Investigations File #2905 – October 30, 2015

- AAA vs. Colony Specialty Insurance – (Mediation Testimony)

Fee Investigations File #2986 – July 7, 2016

- Richard Moreno, Attorney for Murchison & Cumming – (Saska vs Omni Hotels Management) Case #37-2014-00035106 /San Diego - (Deposition Testimony)

Fee Investigations File #3129 – September 15, 2017

- Reed Owens, Colorado Public Defender's Office – (State of Colorado vs Johnny Vasquez) Case #16CR55/Eagle County, Colorado – (Schreck Testimony)

Fee Investigations File #3189 – October 19, 2017

- Mr. Jennell Mimms, Los Angeles County Public Defender's Office – (State of California vs Derrick Hill) Case #YA095474/Torrance, California – (Trial)

Fee Investigations File #3166 – October 30, 2017

- Brian Cardoza, Attorney for Southern California Edison – (KCN Investments vs. Southern California Edison) Case #BC618711/Los Angeles (Deposition Testimony)

Fee Investigations File #3166 – November 9, 2017

- Brian Cardoza, Attorney for Southern California Edison – (KCN Investments vs. Southern California Edison) Case #BC618711/Los Angeles (Trial Testimony)

Fee Investigations File #3071 – November 16, 2017

- Colin Jennings/Kristi Blackwell, Tyson Mendes – (Jesus Romero vs. Macy's Inc.) United States District Court Case #3:15-cv-00815-GPC-MDD/San Diego (Deposition Testimony). Deposition taken at Gomez Trial Attorneys, 655 West Broadway, Suite 1700 San Diego, California 92101

Fee Investigations File #3071 – January 18, 2018

- Colin Jennings/Kristi Blackwell, Tyson Mendes – (Jesus Romero vs. Macy's Inc.) United States District Court Case #3:15-cv-00815-GPC-MDD/San Diego (Trial Testimony).

Fee Investigations File #3129 – April 24, 2018

- Reed Owens, Colorado Public Defender's Office – (State of Colorado vs Johnny Vasquez) Case #16CR55/Eagle County, Colorado – (Trial Testimony)

Fee Investigations File #3073 – June 11, 2018

- Carol Ojo, Attorney at Law – (State of California vs Andrew Clark) Case #SA090528/Los Angeles County, California – (Trial Testimony)

Fee Investigations File #3247 – January 25, 2019

- William Bruzzo, Attorney at Law – (State of California vs. Kevin Welch) Case #B6718456/Orange County, California – (Bail Hearing)

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI

Continued

Fee Investigations File #3248 – October 14, 2019

- Eugene Sung, Attorney at Law – (State of California vs. Duran) Case #17CF2197/Orange County, California – (Trial Testimony)

Fee Investigations File #3200 – November 20 2019

- Hueston Hennigan Law Firm, Attorney for Southern California Edison – (Thomas Fire) Oxnard, California (Grand Jury Testimony)

Fee Investigations File #3350--July 7, 2021

- Lawrence Shelton, Attorney at Law (Shirley Young v Mark Gabay, et al.)
- #BC661305/Los Angeles County, California- (Deposition)

Fee Investigations File #3218--August 3, 2021

- Michael Barrett, Attorney at Law (State Farm General Insurance Company v Southern California Edison, et al.)
- #BC659485 Los Angeles County, California- (Deposition)

Fee Investigations File #3352-August 18, 2021

- Matthew Razo, Deputy Public Defender (People of the State of California vs Francisco Javier Franco)
- 21FN0603/Orange County Superior Court, Santa Ana, California (Trial testimony)

Fee Investigations File #3368-August 30, 2021

- Law Offices of Robert Moore (People of the State of California vs. Mardy Dawnelle Mulkey)
- BA487775/Los Angeles County Superior Court, Los Angeles, California (Trial testimony)

Fee Investigations File #3385 – June 9, 2022

- Attorney Richard Meyers, Kern County Deputy Public Defenders Office, Bakersfield California, (trial testimony), Case# BF187371A - People Of The State Of California vs. Sobin Nhuy

Fee Investigations File #3427 – April 19, 2023

- Law offices of Joseph Barr (Yvonne Watcher: Barry Watcher vs. Palm Desert Kitchens/Howard Grigsby) Case #PSC2002871 (Deposition Testimony)

Fee Investigations File #3235 – May 25 2023

- Orange County Deputy Public Defenders Office, Santa Ana, California, Case #18CF2250 - State Of California vs. Forrest Clark (Wildfire - Trial Testimony)

Fee Investigations File #3396 – June 1, 2023

- James v PacifiCorp (Oregon) Case #20CF33885 (Wildfire - Trial Testimony).

Fee Investigations File #3427 – December 18, 2023

- Law Offices of Joseph Barr (Yvonne Watcher: Barry Watcher vs Palm Desert Kitchens/Howard Grigsby) Case #PSC2002871 (Trial Testimony)

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

Fee Investigations File #3453 – February 22, 2024

- Law Offices of Haight, Brown & Bonesteel, LLP - Krsto Mijanovic, Attorney & Steven A. Scordalakis, Attorney - Select Insurance Corp.; General Insurance Company of America; Grange Insurance Association; Homesite Insurance Company of the Midwest; Liberty Insurance Corporation; Liberty Mutual Fire Insurance Company; Safeco Insurance Company of America; Safeco Insurance Company of Illinois, Vs. Liberty Utilities (Calpeco Electric), LLC; Algonquin Power & Utilities Corp. - Case No. Cv210022 - (Deposition Testimony)

Fee Investigations File #3202 – Creek Fire - September 6 &13, 2024 - (Deposition Testimony – Two days)

- SCE Vs. United States Of America Vs. City Of Los Angeles, Acting By And Through The Los Angeles Department Of Water And Power And Does 1 To 10 Defendants - Law Offices of SCE/Hueston Hennigan - Attorneys Brian Cardoza, Brittnee Bui & Erik Savitt

Fee Investigations File #3415 - March 18, 20251

- Gittler & Berg - Stephen Marcus, Attorney at Law (Eliyaho Schefres and Ramish Mangani vs. Azizi, Ha Rakhamon Farhod)
- Los Angeles County California Court #23STCV01630, - (Deposition)

PROFESSIONAL ORGANIZATIONS:

I belong to or have belonged to the following professional organizations:

California Conference of Arson Investigators:

Member since 1964, Life Member since 1992, Current Training Committee Chairman, Current Business Manager, Current Parliamentarian, Member of the Finance Committee, Past Board Member, Past Treasurer, Past Second Vice President, Past First Vice President, Past President, Past Chairman of the Education Committee, and Project manager of the IAAI/CCAI 1995 Seminar Committee. Presented numerous Awards throughout the Years.

International Association of Arson Investigators:

I am a past member of the Board of Directors and a past President (served two terms as President). I served as a member of the Site Selection Committee for 15 years, a member of the Nominating Committee, a past member of Training and Education Committee and a past member of the Finance/Budget Committee.

Presented “Lifetime Membership Award” in May of 2009.

- Presented the “George H. Parker Distinguished Service Award on May 18, 2010.
- Presented a “Presidential Appreciation Award” 2011.
- Presented the “President’s Award” 2012.
- Presented “45” Years of Dedicated Service to IAAI in May 2013
- Presented “50” Years of Dedicated Service to IAAI in May 2018
- Presented “55” Years of Dedicated Service to IAAI in May 2023

CURRICULUM VITAE
Of
Thomas J. Fee, CCAI-CFI
Continued

International Association of Bomb Technicians and Investigators:

Member

National Fire Protection Association:

Member #240239 – Active member since 1997

The Institution of Fire Engineers:

Graduate Member #00061624

California State Fireman's Association:

Lifetime member

California We-Tip Organization:

Investigator of the Year (1982)

Fire Chief of the Year (1989)

Foothill Arson Control Team:

Past Member

San Bernardino Arson Task Force:

Past Member

California Fire Chiefs Association:

Past Member

International Fire Chiefs Association:

Past Member

Fire Prevention Officers Association:

Past Member

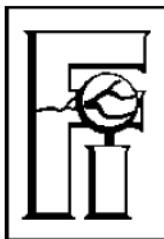
Pomona Fireman's Association:

Past Member, Board Member, Treasurer, Vice President, President, Employee Representative.

QUALIFICATIONS AND PREPARED TESTIMONY OF DR. GARY J. FOWLER

Dr. Gary J. Fowler is a registered professional metallurgical engineer and founder of Fowler, Inc., an engineering consulting firm specializing in metallurgy, materials science, and failure analysis. Dr. Fowler received his Ph.D. in 1976 from the University of California, Los Angeles (UCLA) majoring in Metallurgy and Metals Processing with minors in Materials Science and Product Reliability. Research studies for his doctoral dissertation addressed fracture mechanisms in metals, focusing on the effects of metallurgical variables (e.g. microstructure, inclusion content) on crack initiation and crack growth in steel. After receiving his Ph.D., Dr. Fowler pursued his professional career working in the area of metallurgy, materials science and failure analysis. For over 40 years, he has analyzed thousands of components and mechanical systems for the purpose of determining the root cause for failure. Dr. Fowler has lectured on a university level at UCLA and the University of Southern California on topics relating to his work including the methodology for analyzing failed components and investigative laboratory techniques. He operates a laboratory facility in Gardena, California for metallurgical analysis.

The purpose of Dr. Fowler's testimony in this proceeding is to sponsor the portions of *Liberty's Mountain View Fire Cost Recovery Application, Exhibit Liberty-02: Ignition*, as identified in the Table of Contents thereto. Insofar as this material is factual in nature, he believes it to be correct, and, insofar as this material is in the nature of opinion or judgment, it represents Dr. Fowler's best judgment. Dr. Fowler's curriculum vitae accompanies his qualifications and prepared testimony.



FOWLER INC.

METALLURGICAL ANALYSIS
MATERIALS ANALYSIS &
FAILURE ANALYSIS

GARY J. FOWLER, Ph.D.

Metallurgical Engineer
13707 Cimarron Avenue
Gardena, CA 90249
(310) 329-8300
Mobile (310) 428-4340
Website: metallurgicalengr.com
Email: Fowlerinc@aol.com

Gary J. Fowler, Ph.D.

Dr. Gary J. Fowler is a registered professional metallurgical engineer and founder of Fowler, Inc., an engineering consulting firm specializing in metallurgy, materials science and failure analysis. Dr. Fowler received his Ph.D. in 1976 from the University of California, Los Angeles (UCLA) majoring in Metallurgy and Metals Processing with minors in Materials Science and Product Reliability. Research studies for his doctoral dissertation addressed fracture mechanisms in metals, focusing on the effects of metallurgical variables (e.g. microstructure, inclusion content) on crack initiation and crack growth in steel. After receiving his Ph.D., Dr. Fowler pursued his professional career working in the area of metallurgy, materials science and failure analysis. For over 45 years, he has analyzed thousands of components and mechanical systems for the purpose of determining the root cause for failure. Dr. Fowler has lectured on a university level at UCLA and the University of Southern California on topics relating to his work including the methodology for analyzing failed components and investigative laboratory techniques. He operates a laboratory facility in Gardena, California for conducting metallurgical and materials analysis.

Specialized Professional Competence

Metallurgy and materials science; fracture modes and mechanical properties of metals; failure analysis of components and mechanical systems; fracture surface analysis; environmentally induced cracking studies; high and low temperature fracture studies; failure analysis and fracture of welded structures; corrosion related studies; influence of metallurgical variables on fracture behavior; failure criteria; fracture mechanics; fatigue life prediction; fatigue analysis and testing; impact studies; experimental mechanical testing; nondestructive testing and evaluation; scanning electron microscopy; energy and wavelength dispersive spectroscopy; microanalysis; methodology for conducting failure analysis and laboratory techniques.

Educational Background

B.S., Materials Science and Engineering, University of California, Los Angeles, magna cum laude, 1973.

M.S., Materials Science and Engineering, University of California, Los Angeles, 1973.
Thesis: "Environmental Effects on the Fracture Behavior of Polymethylmethacrylate (PMMA)"

Ph.D., Metallurgy and Metals Processing, University of California, Los Angeles, 1976.
Dissertation: "The Fatigue and Fracture Behavior of Rail Steels"

Honors and Awards

Department Scholar, School of Engineering and Applied Sciences,
University of California, Los Angeles, 1971-1973.

Department of Transportation Fellow
University of California, Los Angeles, 1972.
Graduated magna cum laude, Bachelor of Science, 1973

Professional Work Experience

Consulting Metallurgical Engineer, 1983-Present
Fowler, Incorporated; Founded 1985.

Faculty (part-time) 1987-1993
Institute of Safety and Systems Management, Safety Science Department,
University of Southern California

Course Coordinator and Lecturer, University of California, Los Angeles, UCLA Extension, 1980-1983
Failure Analyst and Metallurgical Engineer, part time 1972-1976, full time 1976-1983
Failure Analysis Associates

Postgraduate Research Engineer, 1973-1976
University of California, Los Angeles

Consultant, Fall 1975
Association of American Railroads
Research Assistant and Engineer, 1971-73
University of California, Los Angeles

Registered Professional Engineer

Registered Professional Metallurgical Engineer, State of California No. MET1712, since 1978

University Teaching Background

“Gas Turbine Engine Accident Investigation – Material Factors”, Lecturer, Institute of Safety and Systems Management, University of Southern California, 1987-1993.

“Fracture, Fractography and Failure Analysis”, Course Coordinator and Lecturer, University of California, Los Angeles, 1983.

“Failure Analysis, Prevention and Risk Assessment”, Course Coordinator and Lecturer, University of California Extension, Los Angeles, 1982 (with R.A. Westman).

“Techniques for Failure Analysis, Failure Prevention and Risk Assessment”, Course Coordinator and Lecturer, University of California, Los Angeles, 1980 (with R. Nelson).

Professional Memberships

ASM International (formerly American Society for Metals), since 1971
Society of Automotive Engineers (SAE), since 1978.
American Society for Testing and Materials (ASTM), since 1978
American Welding Society (AWS), since 1983.
Association for Materials Protection and Performance (AMPP) (formerly National Association of Corrosion Engineers, NACE), since 1984
ASTM Committee E-40, "Technical Aspects of Product Liability Litigation", 1982-1991.
ASTM Committee E-30, "Forensic Sciences", 1991-2009.
ASTM Subcommittee E-58, "Forensic Engineering", 2009-present

Publications and Lectures

"Failure Investigation Methodology", University of California, Los Angeles, May 2021.

"Metallurgical and Materials Analysis of Components From a Eurocopter EC-130B4 Helicopter", Independent Metallurgical and Materials Engineering Consultants of California (IMECA), April 2019.

"Kalitta Air Gas Turbine Engine Loss", Independent Metallurgical and Materials Engineering Consultants of California (IMECA), October 2013.

"Aviation Accident Investigation Methodology", Charles R. Morin Memorial Symposium on Failure Analysis and Prevention, Materials Science and Technology Conference 2009, October 2009.

"Alaska Airlines Accident – Wear Rates and Inspection Procedures", Independent Metallurgical and Materials Engineering Consultants of California (IMECA), 2003.

"Forensic Investigation of a Refinery Explosion via Experimental and Numerical Analysis", International Conference on Material Engineering, Lecce, Italy, September 1996 (with M. Fourney and L. Kashar).

"Failure Analysis of Gas Turbine Engines", IMECA, 1993.

"The Evaluation of Thermal Damage in Aircraft Structures", IMECA, 1990.

"Twilight Zone – The Helicopter Accident", The Metallurgical Society of AIME, 1987; ASM International, 1988; Northrup University, 1988.

"Fracture Analysis of Gas Turbine Blades", Fracture and Failure Analysis, WESTEC Conference, Los Angeles, 1988.

"Life Prediction Using Fracture Mechanics", University of California, Los Angeles, 1986.

"Analysis of Helicopter Component Failures", IMECA, 1986.

“Intergranular Fracture in Engineering Materials”, International Symposium for Testing and Failure Analysis, Los Angeles, 1984 (with R. Lund).

Chairperson, Technical Update II, International Symposium for Testing and Failure Analysis, Los Angeles, 1983.

“Prediction of Structural Failure Using the Failure Assessment Diagram”, International Symposium for Testing and Failure Analysis, Los Angeles, 1983 (with J.N. Robinson).

“Examination of Induction Airbox Assembly,” Investigation Manual: Aviation, National Transportation Safety Board, 1983.

“Application of the Failure Assessment Diagram in the Analysis of Pressure Vessel Failures”, Fourth National Congress on Pressure Vessel and Piping Technology, ASME, Portland, 1983 (with J.N. Robinson).

“Accident Investigation Methodology Used in a Large Scale Refinery Explosion”, Subcommittee on Storage and Handling of the Operating Practices Committee, American Petroleum Institute, Los Angeles, 1983.

“Manufacturing Procedures and Their Relation to Failure in Landing Gear Components”, International Symposium for Testing and Failure Analysis, San Jose, 1982 (with M. Brown).

Chairperson, Failure Analysis-II, WESTEC Conference, Los Angeles, 1982.

“Mechanical Properties and Fracture”, Continuing Education Institute, Los Angeles, 1981.

“Investigation of Pressure Vessel Failures”, ASME Pressure Vessel and Piping Division, Los Angeles, 1980.

“Failure Analysis of Wire Rope”, Wire Rope Symposium, Denver, 1980 (with R. Lund and D. Cox).

“Application of Fracture Mechanics in Engineering Design”, University of California, Los Angeles, 1980.

“The Influence of Nonmetallic Inclusions on the Threshold Behavior in Fatigue”, Journal of Materials Science and Engineering, 1979, Vol. 39, p. 121.

“Stress Concentration of Nonmetallic Inclusions and its Effect on Fatigue Crack Initiation in Rail Steels”, American Railroad Engineers Association Bulletin, 1978 (with A.S. Tetelman).

“Effect of Grain Boundary Ferrite on Fatigue Crack Propagation in Pearlitic Rail Steels”, American Society for Testing and Materials, Special Technical Publication (STP-644): Rail Steels Developments, Processing and Use, 1978 (with A.S. Tetelman).

“Fatigue in Rail Steels”, Association of American Railroads, Chicago, May and October, 1975.

“Stable Fatigue Crack Growth Above K_{Ic} ”, University of California, Los Angeles, 1975.

LIBERTY UTILITIES (CALPECO ELECTRIC) LLC
QUALIFICATIONS AND PREPARED TESTIMONY
OF ANDREW LYKENS

Q. Please state your name and business address for the record.

A. My name is Andrew Lykens and my business address is 701 National Avenue, Tahoe Vista, CA 96148.

Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC (“Liberty”).

A. I currently serve as the Senior Manager of Engineering at Liberty.

Q. Briefly describe your educational and professional background.

A. I have a Bachelor of Science Degree in Electrical Engineering from Kansas State University. I am a registered Professional Engineer in the state of California. I have held various position in the Electric Utility and Power Industry at Liberty Utilities and Kiewit Power Engineers.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of *Liberty's Mountain View Fire Cost Recovery Application, Exhibit Liberty-03: Prudence of Operations*, as identified in the Table of Contents thereto.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgement, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

LIBERTY UTILITIES (CALPECO ELECTRIC) LLC
QUALIFICATIONS AND PREPARED TESTIMONY
OF STEPHEN MOORE

Q. Please state your name and business address for the record.

A. My name is Stephen Moore and my business address is 933 Eloise Avenue, South Lake Tahoe, CA 96150.

Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC (“Liberty”).

A. I currently serve as the Senior Manager of Operations at Liberty.

Q. Briefly describe your educational and professional background.

A. I joined Liberty in March 2022, as manager of electric operations. Before that, I worked for three years as a manager of electric operations for the Truckee Donner Public Utility District, and for 19 years as a maintenance worker, electrician, and utility supervisor for the City of Pittsburg, California. I have a certificate in Construction Management from Diablo Valley College.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of *Liberty's Mountain View Fire Cost Recovery Application, Exhibit Liberty-03: Prudence of Operations*, as identified in the Table of Contents thereto.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgement, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

LIBERTY UTILITIES (CALPECO ELECTRIC) LLC
QUALIFICATIONS AND PREPARED TESTIMONY
OF MANASA RAO

Q. Please state your name and business address for the record.

A. My name is Manasa Rao, and my business address is 9750 Washburn Road, Downey, California 90241.

Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC (“Liberty”).

A. I am employed by Liberty Utilities (Park Water) Corp. as Senior Director, Rates and Regulatory Affairs.

Q. Briefly describe your educational and professional background.

A. Prior to my present role, I was the Director of Financial Planning & Analysis, West Region for two years. Prior to that, I was employed by Liberty Utilities (Canada) Corp for over seven years in various Finance related positions, including Manager, External Reporting and Senior Manager, Financial Planning & Analysis. I received my Bachelor in Business Administration from Truman State University, MO in 2004 and also hold a Chartered Professional Accountant (CPA, CMA) designation from Canada.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor *Liberty's Mountain View Fire Cost Recovery Application, Exhibits Liberty-06: Litigation and Financing Costs; and Liberty-07: Cost Recovery.*

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgement, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY OF DARRELL SCHULTE

Darrell Schulte is an expert in analyzing and predicting fire behavior. Mr. Schulte has over 35 years of experience working as a Fire Behavior Analyst on Incident Management Teams nationally, including 30 years of experience as a Long-Term Fire Behavior Analyst. His career includes serving as Assistant Forest Fire Management Officer, District Fire Manager Officer, hotshot crew supervisor, Assistant District Fire Management Officer supervising a 20-person brush disposal crew, and supervising district engine and fire crews. He is an expert user of BehavePlus, FireFamily Plus, FlamMap, Farsite, and is an Analyst and User of the Wildland Fire Decision Support System (WFDSS). Mr. Schulte has worked on Interdisciplinary teams and National Environmental Planning Act (NEPA) planning efforts for over 35 years specializing in fire and fuels management. He participated in the 1995 Interagency Management Review for the South Canyon Fire by analyzing the availability and use of Fire Behavior Analysts during the 1994 fire season. He participated in the 2013 State of Arizona Occupational Safety and Health Administration investigation of the Yarnell Fire. He has served as an expert witness and fire behavior consultant for legal firms. Additionally, Mr. Schulte has instructed numerous courses on wildland fire behavior, fire weather, fire suppression tactics, and Incident Command Structure.

The purpose of Mr. Schulte's testimony in this proceeding is to sponsor the portions of *Liberty's Mountain View Fire Cost Recovery Application, Exhibit Liberty-04: External Factors*, as identified in the Table of Contents thereto. This material was prepared by Mr. Schulte and under his supervision. Insofar as this material is factual in nature, he believes it to be correct, and, insofar as this material is in the nature of opinion or judgment, it represents Mr. Schulte's best judgment. Mr. Schulte's curriculum vitae accompanies his qualifications and prepared testimony.

Darrell Schulte
PO Box 238
Virginia City, MT 59755
406-599-5059
schulte.darrell@gmail.com

Objective: *Assure sound scientific principles are used to provide wildland fire analysis and land management planning that supports sustainable ecosystems and communities.*

Specialized Experience

NWCG Red Card qualified and certified Wildland Fire Behavior Analyst

Long Term Fire Behavior Analyst

Wildland Fire Decision Support System User and Analyst

- 35 years with Incident Management Teams Nationally
- 25 years with Interdisciplinary Teams and NEPA planning efforts
- 35 years as an Instructor and Course Developer for Wildland Fire
- 35 years working on Incident Management Teams Nationally as a Fire Behavior Analyst
- 30 years as a Long-Term Fire Behavior Analyst
- Expert witness and Fire Behavior Consultant for legal cases regarding fire management
- Expert user of Firefamily Plus, FlamMap, Farsite, Analyst/ User for Wild Fire Decision Support System (WFDSS)

Additional Experience

- Instructor for Fire Program Analysis (FPA) Cadre (Bighorn Info Systems) for national start up.
- Developed courses, taught numerous courses nationwide, mentored numerous Forest Fire Planners in Region 1
- Served annually for 6 years as Instructor for S390 Wildland Fire Behavior Calculations Colorado Wildfire Training Academy.
- RX 590 Instructor and Cadre member for 5 years at National Advanced Regional Training Center.
 - Developed course sessions, presentations, taught Historical Fire Analysis, coached trainees and served as mentor to new Long Term Fire Behavior Analysts.
- Ad hoc Cadre member for National Fire Management Analysis System (NFMAS) nationally.
 - Regional Instructor for S 490, Region 1 USFS for numerous sessions, and ad hoc member of various national S490 Cadres from 1990 – 2003.
- Served as the Cadre member for numerous Wildland Fire S courses (100-400 level) regionally and nationally during my tenure as the Assistant Forest Fire Mgmt. Officer (FMO) for the Beaverhead-Deerlodge NF.
- Developed and implemented fuels management planning, prevention analysis, and landscape level planning efforts for hazard reduction as Fire Planner for the Beaverhead-Deerlodge NF.
- Analyzed, prepared and developed Fuels Characteristic Classification System (FCCS) annually for the Forestry Dept. of Fort Gordon, US Dept. of Defense.
 - Used FCCS and Consume to generate smoke management particulate emissions estimates for the State of Georgia and Fort Gordon's Prescribed Burning Program.
 - Prepared Fire/Fuels Management and Air Quality reports for National Environmental Planning Analysis (NEPA).

- Rewrote Fire Management Plans (FMP) for the US Fish and Wildlife Service and National Park Service.
 - Updated FMPs to reflect latest policy changes, vernacular, and implementation guidelines.
- Completed Two County Wide Protection Plans for Warren and Forest Counties, Pennsylvania, 2014.

Work History

| | |
|---------------|--|
| 2021- present | Owner Vigilante Wildland Fire Consulting, LLC |
| 2023-present | Madison County Forester, Madison County, MT |
| 2013 -2021 | Owner, CEO Alder Gulch Natural Resources Inc, Fire and Fuels Mgmt. Consultant |
| 2017 | Expert witness for Blackfoot Nation in Red Eagle wildland fire case |
| 2013 | Team Member Yarnell Hill Fire Review, Wildland Fire Associates under contract with the Arizona Division of Occupations Health and Safety |
| 2007 – 2015 | Owner and Associate of Wildland Fire Associates, Fire Behavior and Planning specialist |
| 2003 – 2010 | Wildland Fire and Fuels Management Consultant, Bighorn Information Systems team member |
| 2009 – 2012 | Fire Behavior Specialist and Fire Wise Consultant/specialist for Wildfire Defense Systems |
| 1993 – 2003 | Assistant Forest Fire Management Officer, Beaverhead-Deerlodge NF |
| 1991 – 1993 | Assist. District Fire Mgt Officer/District Fire Mgmt. Officer Whitehall RD, Beaverhead-Deerlodge NF |
| 1988 – 1991 | Assistant District Fire Mgt Officer/Acting District Fire Mgmt. Officer Waldport RD, Siuslaw NF |
| 1986 – 1988 | Superintendent Prineville Interagency Hotshot Crew, Ochoco NF |
| 1980 – 1986 | Assistant District Fire Management Officer, Tiller Ranger District, Umpqua NF |
| 1979 – 1980 | Recreation Technician, Salt Lake RD, Wasatch-Cache NF |
| 1975 – 1979 | Lookout, Fuels Technician, Wildland Fire Engine Crew member, Libby RD, Kootenai NF |

Education

B.S. of Forestry, University of Montana, 1978
 Technical Fire Management, University of Washington 1983 - 1984

LIBERTY UTILITIES (CALPECO ELECTRIC) LLC
QUALIFICATIONS AND PREPARED TESTIMONY
OF ERIC SCHWARZROCK

Q. Please state your name and business address for the record.

A. My name is Eric Schwarzrock and my business address is 701 National Avenue, Tahoe Vista, CA 96148.

Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC (“Liberty”).

A. I currently serve as President at Liberty.

Q. Briefly describe your educational and professional background.

A. I joined Liberty as President in January 2025. Before joining Liberty, I had 20 years of experience in the electric utility industry at NV Energy, in operations, planning, engineering, asset management, project management and project development. I have a Bachelor of Science degree in Electrical Engineering and a Master of Business Administration, both from the University of Nevada, Reno. I am a registered Professional Engineer.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor *Liberty's Mountain View Fire Cost Recovery Application, Exhibit Liberty-01: Policy*; and the portions of *Liberty-02: Ignition*, as identified in the Table of Contents thereto.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgement, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

LIBERTY UTILITIES (CALPECO ELECTRIC) LLC
QUALIFICATIONS AND PREPARED TESTIMONY
OF PETER STOLTMAN

Q. Please state your name and business address for the record.

A. My name is Peter Stoltman and my business address is 701 National Avenue, Tahoe Vista, CA 96148.

Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC (“Liberty”).

A. I am currently the Senior Manager of Wildfire Prevention at Liberty, where I am responsible for the development and execution of the utility’s wildfire prevention programs.

Q. Briefly describe your educational and professional background.

A. I have been the Senior Manager of Vegetation Management for Liberty since June 2023 and was the Manager of Vegetation Management since March 2020. Prior to that, I was a Technical Specialist and Vegetation Management Program Manager for Oncor Electric Delivery Company LLC responsible for the regulatory compliance and maintenance strategy of the transmission and distribution vegetation management programs. I have worked as a consulting arborist in residential, commercial, municipal, and utility industries, and held various related positions in the public and private sector. I am an International Society of Arboriculture (ISA) Board Certified Master Arborist, the highest level of certification offered by ISA. I received a Bachelor of Science Degree in 2005 from the University of Idaho College of Natural Resources where I studied natural resource conservation.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor the portions of *Liberty’s Mountain View Fire Cost Recovery Application, Exhibit Liberty-03: Prudence of Operations*, as identified in the Table of Contents thereto.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgement, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY OF DR. A LEROY WESTERLING

Dr. A LeRoy Westerling is a Professor of Management of Complex Systems in the School of Engineering at UC Merced. Dr. Westerling holds a joint Ph.D. in Economics and International Affairs from the Department of Economics and from the School of Global Policy and Strategy at UC San Diego. Dr. Westerling worked for over six years in the Climate Research Division at Scripps Institution of Oceanography before taking tenure track Assistant Professor joint appointments at UC Merced in 2006 in Environmental Engineering and Geography. Dr. Westerling has published numerous works on wildfire, climate change, and closely related topics, and regularly gives public presentations on climate change, wildfire and related risks. In California, he has led the development of statistical models for wildfire and simulations of extreme wildfire events for scenarios for future climate for all four of California's previous state climate assessments. Dr. Westerling currently leads a working group that coordinates the development and integration of a system of models for simulating wildfire occurrence, size and severity; vegetation and carbon; and wildfire pollution emissions for California's Fifth Climate Change Assessment. Dr. Westerling is also a member of the Climate Working Group of the National Oceanic and Atmospheric Administration's (NOAA's) science advisory board, which is preparing a report on the development of wildfire hazard forecast products, and is Chair of the University of California's Disaster Resilience Network.

The purpose of Dr. Westerling's testimony in this proceeding is to sponsor the portions of *Liberty's Mountain View Fire Cost Recovery Application, Exhibit Liberty-04: External Factors*, as identified in the Table of Contents thereto. This material was prepared by Dr. Westerling and under his supervision. Insofar as this material is factual in nature, he believes it to be correct, and, insofar as this material is in the nature of opinion or judgment, it represents Dr. Westerling's best judgment. Dr. Westerling's curriculum vitae accompanies his qualifications and prepared testimony.

A LEROY WESTERLING

Professor, Management of Complex Systems, E. & J. Gallo Management Program,

School of Eng., UC Merced CA 95343 cell: 209 756 8793

leroy.westerling@icloud.com <http://ulmo.ucmerced.edu>

EDUCATION

University of California, San Diego

Department of Economics and School of Global Policy and Strategy

Joint Ph.D. 2000, Economics and International Affairs

Advisor: Dr. Gordon J. MacDonald (GPS (formerly IRPS), deceased)

Committee: Richard T. Carson (Economics, Co-Chair), Clive W.J. Granger (Economics, deceased), Barry J. Naughton (IRPS), Jason M. Shachat (Economics), Richard C.J. Somerville (SIO)

Dissertation: *Climate Change and Variability, and the Role of Information in Catastrophe Insurance Markets*

University of California, Los Angeles

B.A. 1987, Economics/International Area Studies - China. Minor: Finance and Accounting.

PROFESSIONAL EXPERIENCE

Professor - Management, Department: Management of Complex Systems, School of Engineering. *UC Merced*, 2018 - present.

Associate Professor - Management, Department: Management of Complex Systems, School of Engineering. *UC Merced*, 2015 - 2018.

Associate Professor - Environmental Engineering, School of Engineering. *UC Merced*, 2010 - 2015.

Associate Professor - Geography, Cognitive and Information Sciences, School of Social Sciences, Humanities and Arts. *UC Merced*, 2010 - 2015.

Assistant Professor - Environmental Engineering, School of Engineering. *UC Merced*, 2006 - 2010.

Assistant Professor - Geography, School of Social Sciences, Humanities and Arts. *UC Merced*, 2006 - 2010.

Assistant Project Scientist - Climate Research Division, *Scripps Institution of Oceanography*, La Jolla, CA, 2004 - 2006. PI: Daniel Cayan.

Postgraduate Research Meteorologist - Climate Research Division, *Scripps Institution of Oceanography*, La Jolla, CA, 2000 - 2004. PI: Daniel Cayan

Instructor - *Graduate School of International Relations and Pacific Studies Pre-Academic Program*, International Career Associates Program, UCSD, Summer 1997 - 1998.

Graduate Student Researcher - *Graduate School of International Relations and Pacific Studies*, University of California, San Diego, 1992 - 1997. PI: Dr. Gordon J. MacDonald.

Teaching Assistant - UCSD: *International Economics* 1997 & 1994, *Managerial Economics* 1996, *Politics of International Economic Relations* 1993, *3rd College Writing Program* 1992.

Visiting Researcher - Young Scientist Summer Program, *International Institute for Applied Systems Analysis*, Laxenburg, Austria, 1996. Support: NSF/American Acad. of Arts & Sciences.

Staff Research Associate - *California Environmental Technology Center*, Scripps Institution of Oceanography, La Jolla, CA, 1994 - 1995.

Prevention Effectiveness Summer Intern - *Air Pollution and Respiratory Health Branch, National Center for Environmental Health, Centers for Disease Control*, Atlanta, GA, 1993.

Assistant General Manager and Associate Editor - *Journal of Environment & Development*, La Jolla, CA, 1991 - 1993.

Research Associate - *Economic Analysis Corporation*, Century City, CA, 1989 - 1990.

English Instructor - *Hangzhou University of Commerce*, Hangzhou, Zhejiang Province, People's Republic of China, 1988 - 1989.

State Department Summer Intern - Office of Land Transport and Maritime Affairs, Bureau of Economics, U.S. State Department, Washington, D.C., Summer 1987.

GRADUATE STUDENT RESEARCHERS

Joe Crockett, University of New Mexico, Albuquerque, Ecology (Ph.D., Defended 2023, Dissertation Committee Member)

Madeline S. Brown, UC Merced, Environmental Systems (Ph.D., Defended 2024, Dissertation Committee Chair)

Alireza Dostan, UC Merced, Environmental Systems (Ph.D., in progress, committee member, former acting Advisor)

Samrajya Thapa, UC Merced, Environmental Systems (Ph.D., Defended 2024, Advisor & Chair)

Jonathan Sam, UC Merced, Environmental Systems (Ph.D., Defended 2022, Advisor & Chair)

Qingqing Xu, UC Merced, Environmental Systems (Ph.D., Defended 2022, Advisor & Chair)

Joseph Crockett, UC Merced, Environmental Systems (M.S. Defended 2017, Advisor & Chair, Thesis Committee)

Alisa R. Keyser, UC Merced, Environmental Systems (Ph.D. Defended 2016, Filed 2016, Advisor & Chair, Dissertation Committee)

Kaitlin Lubetkin, UC Merced, Environmental Systems (Ph.D. Defended 2014, Co-Chair, Dissertation Committee)

Benjamin P. Bryant, Pardee RAND Graduate School, Policy Analysis (Ph.D., Defended 2012, Filed 2013, Member, Dissertation Committee)

OTHER GRADUATE STUDENT MENTEES

Lillie Pennington, UC Merced, Environmental Systems (Ph.D., Advanced to Candidacy 2019, Dissertation Committee Member, Qualifying Exam Committee Member)

James Stinecipher, UC Merced, Environmental Systems (Ph.D., Advanced to Candidacy 2016, Completed 2022, Dissertation Committee Member, Qualifying Exam Committee Member)

Joseph Runge, UC Merced, Environmental Systems (Ph.D., Advanced to Candidacy 2016, Completed 2019, Qualifying Exam Committee Member)

Daniel Winkler, UC Merced, Environmental Systems (M.S. Completed 2013, Committee Member)

Miguel Fernandez, UC Merced, Environmental Systems (Ph.D., Defended 2013, Dissertation Committee Member)

YaQiong Lu, UC Merced, Environmental Systems (Ph.D., Advanced to Candidacy 2010, Qualifying Exam Committee Member)

Thomas Corringham, UC San Diego, Economics (Ph.D., Advanced to Candidacy 2006, Qualifying Exam Committee Member)

PUBLICATIONS

(underlined authors were students when they contributed to the indicated publication)

Peer-reviewed Publications:

Thapa, S.B., Jenkins, J.S. and Westerling, A.L., 2023. Perceptions of Wildfire Management Practices in a California Wildland-Urban Interface. *Environmental Advances*, p.100382.

Xu, Q., Westerling, A.L. and Baldwin, W.J., 2022. Spatial and temporal patterns of wildfire burn severity and biomass burning-induced emissions in California. *Environmental Research Letters*, 17(11), p.115001.

Xu, Q., Westerling, A.L., Notohamiprodjo, A., Wiedinmyer, C., Picotte, J.J., Parks, S.A., Hurteau, M.D., Marlier, M.E., Kolden, C.A., Sam, J.A. and Baldwin, W.J., 2022. Wildfire burn severity and emissions inventory: an example implementation over California. *Environmental Research Letters*, 17(8), p.085008.

Sam, J.A., Baldwin, W.J., Westerling, A.L., Preisler, H.K., Xu, Q., Hurteau, M.D., Sleeter, B.M. and Thapa, S.B., 2022. Simulating burn severity maps at 30 meters in two forested regions in California. *Environmental Research Letters*, 17(10), p.105004.

Jones, G., Hessburg, P.F., Keane II, R.E., Spies, T., North, M.P., Collins, B.M., Finney, M.A. and Lydersen, J., Westerling, A.L. 2022. Counteracting wildfire misinformation. *Frontiers in Ecology and the Environment*. 20 (7): 392-393., 20(7), pp.392-393.

Gavin M. Jones, Alisa R. Keyser, A. Leroy **Westerling**, W. Jonathan Baldwin, John J. Keane, Sarah C. Sawyer, John D. J. Clare, R. J. Gutierrez, M. Zachariah Peery. 2022. Forest restoration limits megafires and supports species conservation under climate change. *Frontiers in Ecology and the Environment*.

Monica G. Turner, Kristin H. Braziunas, Winslow D. Hansen, Tyler J. Hoecker, Werner Rammer, Zak Ratajczak, A. Leroy **Westerling**, and Rupert Seidl. 2021. The magnitude, direction and tempo of forest change in Greater Yellowstone in a warmer world with more fire. *Ecological Monographs* Oct 15:e01485.

Werner Rammer, Kristin H. Braziunas, Winslow D. Hansen, Zak Ratajczak, A. Leroy **Westerling**, Monica G. Turner, Rupert Seidl. 2021. Widespread regeneration failure in forests of Greater Yellowstone under scenarios of future climate and fire. *Global Change Biology* 27(18):4339-4351.

Abatzoglou, J.T., Juang, C.S., Williams, A.P., Kolden, C.A. and **Westerling**, A.L., 2021. Increasing synchronous fire danger in forests of the western United States. *Geophysical Research Letters*, 48(2), p.e2020GL091377.

Scott Stephens, LeRoy **Westerling**, Matthew Hurteau, M. Zachariah Peery, Courtney A. Schultz, Sally Thompson. 2021. Undesirable outcomes in seasonally dry forests. *Front Ecol Environ* 19(2), pp.87-88.

Jones, Gutierrez, Block, Carlson, Comfort, Cushman, Davis, Eyes, Franklin, Ganey, Hedwall, Keane, Kelsey, Lesmeister, North, Roberts, Rockweit, Sanderlin, Sawyer, Solevsky, Tempel, Wan, **Westerling**, White, Peery 2020. Spotted owls and forest fire: Comment. *Ecosphere*, 11(12).

Scott Stephens, LeRoy **Westerling**, Matthew Hurteau, M. Zachariah Peery, Sally Thompson. 2020 Fire and climate change: Conserving seasonally dry forests is still possible. *Frontiers in Ecology and the Environment*.

Petersen, A.M., Vincent, E., **Westerling**, A.L. 2019. Discrepancy in scientific authority and media visibility of climate change scientists and contrarians. *Nature Communications*, 10(1), pp.1-14.

Sleeter, B.M., Marvin, D.C., Cameron, D.R., Selmants, P.C., **Westerling**, A.L., Kreitler, J., Daniel, C.J., Liu, J. and Wilson, T.S., 2019. Effects of 21st century climate, land use, and disturbances on ecosystem carbon balance in California. *Global Change Biology*.25(10): 3334-3353.

Hurteau, Liang, **Westerling**, Wiedinmyer 2019. Vegetation-fire feedback reduces projected area burned under climate change. *Scientific Reports*, 9(1), p.2838.

Keyser, **Westerling** 2019. Predicting increasing high severity area burned for three forested regions in the western United States using extreme value theory. *Forest Ecology and Management*, 432, pp.694-706.

Bedsworth, Cayan, Franco, Fisher, Ziaja, et al. 2019. Statewide Summary Report. *California's Fourth Climate Change Assessment*. Publication number: SUM- CCCA4-2018-013.

Franco, Cayan, Pierce, **Westerling**, Thorne. 2018. Cumulative Global CO₂ Emissions and their Climate Impacts from Local through Regional Scales. *California's Fourth Climate Change Assessment*. Publication number: CCCA4-EXT-2018-007.

Westerling 2018. Wildfire Simulations for California's Fourth Climate Change Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate. *California's Fourth Climate Change Assessment*, California Energy Commission. Publication Number: CCCA4-CEC-2018- 014.

Liang, Hurteau, **Westerling** 2018 Implementing large-scale restoration treatments increases carbon storage and stability under projected climate-wildfire interactions in the Sierra Nevada. *Frontiers in Ecology and the Environment* 16(4): 207-212.

Crockett, J.L., **Westerling**, A.L. 2018. Greater temperature and precipitation extremes intensify Western US droughts, wildfire severity, and Sierra Nevada tree mortality. *J Clim* 31(1):341-354.

Kitzberger, T.; Falk, D.A.; **Westerling**, A.L.; Swetnam, T.W. 2017. Direct and indirect climate controls predict heterogeneous early-mid 21st century wildfire burned area across western and boreal North America. *PLOS ONE* 12(12): e0188486.

Matlock, T; Coe, C.M.; **Westerling**, A.L. 2017. Monster wildfires and metaphor in risk communication. *Metaphor and Symbol* 32(4), pp.250-261.

Liang, S.; Hurteau, M.; **Westerling**, A.L. 2017. Potential decline in carbon carrying capacity under projected climate-wildfire interactions in the Sierra Nevada. *Scientific Reports* 7(1):2420 pp. 1-7 doi:10.1038/s41598-017-02686-0

Lubetkin, K. Kueppers, L., **Westerling, A.L.** 2017. Climate and landscape drive the pace and pattern of conifer encroachment into subalpine meadows. *Ecological Applications* 27(6) 1876-1887.

Keyser, A.R., **Westerling, A.L.** 2017. Climate drives inter-annual variability in probability of high severity fire occurrence in the western United States. *Environmental Research Letters* 12:065003.

Liang, S.; Hurteau, M.; **Westerling, A.L.** 2017. Response of Sierra Nevada forests to projected climate-wildfire interactions. *Glob Change Biol.* 23(5) 2016-2030. doi:10.1111/gcb.13544.

Westerling ALR. 2016 Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring. *Phil. Trans. R. Soc. B* 371: 20150178. <http://dx.doi.org/10.1098/rstb.2015.0178>

Westerling, A.L. , Brown, T.J., Schoennagel, T., Swetnam, T.W., Turner, M.G., Veblen, T.T. 2016. Climate and Wildfire in Western US Forests. Chapter 3 in *Forest Conservation in the Anthropocene: Science, Policy, and Practice*. Edited by V.A. Sample, R.P. Bixler, and C. Miller. University Press of Colorado. August, 2016. pp 43 - 56.

Barnosky, A D, Matlock, T, Christensen, J, Han, H, Miles, J, Rice, R E, **Westerling**, L and White, L 2016 Chapter 9. Establishing Common Ground: Finding Better Ways to Communicate About Climate Disruption. In Special Collection: Bending the Curve: Ten scalable solutions for carbon neutrality and climate stability. *Collabra*, 2(1): 23, pp. 1-20, DOI: <http://dx.doi.org/10.1525/collabra.68>

Monica G. Turner, Daniel C. Donato, Winslow D. Hansen, Brian J. Harvey, William H. Romme, and **A. LeRoy Westerling**. 2016: Climate Change and Novel Disturbance Regimes in National Park Landscapes. Chapter 5 in *Science, Conservation and National Parks*. Editors: Steven R. Beissinger, David D. Ackerly, Holly Doremus, and Gary E. Machlis. University of Chicago Press. December, 2016.

B.P. Bryant, A.L. Westerling 2014: Scenarios for future wildfire risk in California: links between changing demography, land use, climate and wildfire, *Environmetrics* 25(6):454-471

Westerling, Brown, Schoennagel, Swetnam, Turner, Veblen 2014: Briefing: Climate and Wildfire in Western US Forests, in Sample, V. Alaric and R. Patrick Bixler (eds.). 2014. *Forest Conservation and Management in the Anthropocene*. General Technical Report. Fort Collins, CO: US Department of Agriculture, Forest Service. Rocky Mountain Research Station.

Hurteau, M.D., **A.L. Westerling**, C. Wiedinmyer, B.P Bryant 2014: "Projected Effects of Climate and Development On California Wildfire Emissions through 2100," *Journal of Environmental Science and Technology*, 48 2298-2304.

Pierce, D. W., **Westerling, A. L.**, and Oyler, J. 2013: Future humidity trends over the western United States in the CMIP5 global climate models and variable infiltration capacity hydrological modeling system, *Hydrol. Earth Syst. Sci.*, 17, 1833-1850, doi:10.5194/hess-17-1833-2013, 2013.

Fleishman, Belnap, Cobb, Enquist, Ford, MacDonald, Pellatt, Schoennagel, Schmit, Schwartz, Van Drunick, **Westerling, Keyser, Lucas** 2013: "Chapter 8: Natural Ecosystems" *The Southwest Climate Assessment Technical Report*.

Bryant, B.P., A.L. Westerling, 2012: "Scenarios to Evaluate Long-term Wildfire Risk in California: new methods for considering links between changing demography, land use and climate" *Public Interest Energy Research, California Energy Commision*, Sacramento, CA.

Westerling, A.L., B.P. Bryant, H.K. Preisler, T.P. Holmes, H. Hidalgo, T. Das, and S. Shrestha 2011: "Climate Change and Growth Scenarios for California Wildfire" *Climatic Change*, 109(s1):445-463.

Smithwick, E. A. H., **A. L. Westerling**, M. G. Turner, W. H. Romme, M. G. Ryan 2011: Vulnerability of Landscape Carbon Fluxes to Future Climate and Fire in the Greater Yellowstone Ecosystem, *Questioning Greater Yellowstone's Future: Climate, Land Use, and Invasive Species. Proceedings of the 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem. October 11-13, 2010, Mammoth Hot Springs Hotel, Yellowstone National Park*. C. Andersen, ed., 191-198.

Westerling, A.L., M.G. Turner, E.H. Smithwick, W.H. Romme, M.G. Ryan 2011: "Continued warming could transform Greater Yellowstone fire regimes by mid-21st Century" *Proceedings of the National Academy of Sciences*, 108(32),13165-13170.

Preisler, H.K., **A.L. Westerling**, K. M. Gebert, F. Munoz-Arriola, T. P. Holmes 2011: "Spatially Explicit Forecasts of Large Wildland Fire Probability and Suppression Costs for California" *International Journal of Wildland Fire*, 20 508-517.

Westerling, A. L. 2009: "Wildfires," Chapter 8 in *Climate Change Science and Policy*, Schneider, Mastrandrea, Rosencranz and Kuntz-Duriseti, Eds., Island Press.¹

Spracklen D. V., L. J. Mickley, J. A. Logan, R. C. Hudman, R. Yevich, M. D. Flannigan, **A. L. Westerling** 2009: "Impacts of climate change from 2000 to 2050 on wildfire activity and carbonaceous aerosol concentrations the western United States," *Journal of Geophysical Research*, 114, D20301.

Westerling, A. L., B. P. Bryant, H. K. Preisler, T. P. Holmes, H. G. Hidalgo, T. Das 2009: "Climate Change, Growth and California Wildfire" *Public Interest Energy Research, California Energy Commission*, Sacramento, CA.

Bryant, B. P. and **A. L. Westerling** 2009: "Potential Effects of Climate Change on Residential Wildfire Risk in California" *Public Interest Energy Research, California Energy Commission*. Sacramento, CA.

Littell, J. S., D. McKenzie, D. L. Peterson, and **A. L. Westerling** 2009: "Climate and Wildfire Area Burned in Western U.S. Ecoprovinces, 1916-2003," *Ecological Applications*.

Bryant, B.P., **A.L Westerling** 2009: *AIGIS: Areal Interpolation for GIS data, Comprehensive R Archive Network*, contributed software package for R.

Westerling, A.L., H.G. Hidalgo, D.R. Cayan, T.W. Swetnam: "Warming and Earlier Spring Increases Western U.S. Forest Wildfire Activity" republished with commentary in *Science Magazine's State of the Planet 2008-2009*. Island Press. Donald Kennedy, Ed. ISBN 1-59726-405-9. *Pub. Date: 12/18/2008*

Jaffe, D., W. Hafner, D. Chand, **A. L. Westerling**, D. V. Spracklen 2008: "Interannual Variations in PM2.5 due to Wildfires in the Western United States," *Environmental Science and Technology*, 42: 2812-2818.
DOI:10.1021/es702755v

Jaffe, D., D. Chand, W. Hafner, **A. L. Westerling**, D. V. Spracklen 2008: "Influence of Fires on O₃ Concentrations in the Western U.S.," *Environmental Science and Technology*, 42(16), 5885-5891, DOI:10.1021/es800084k.

Westerling, A. L., 2008: "Climatology for Wildfire Management," Chapter 6 in *The Economics of Forest Disturbances: Wildfires, Storms, and Invasive Species*, Series: Forestry Sciences, Vol 79. T.P. Holmes, J.P. Prestemon and K.L. Abt, Eds., XIV, 422 p. Springer. ISBN: 978-1-4020-4369-7

Holmes, T. P., R. J. Hugget and **A. L. Westerling**, 2008: "Statistical Analysis of Large Wildfires," Chapter 4 *The Economics of Forest Disturbances: Wildfires, Storms, and Invasive Species*, Series: Forestry Sciences, Vol 79. T.P. Holmes, J.P. Prestemon and K.L. Abt, Eds., XIV, 422 p. Springer. ISBN: 978-1-4020-4369-7

Preisler, H. K., S. C. Chen, F. Fujioka, J. W. Benoit, **A. L. Westerling**, 2008: "Wildland fire probabilities estimated from weather model-deduced monthly mean fire danger indices," *International Journal of Wildland Fire*, 17:305-316. DOI: 10.1071/WF06162

Corringham, T., **A. L. Westerling**, B. Morehouse 2008: "Exploring Use of Climate Information in Wildland Fire Management: A Decision Calendar Study," *Journal of Forestry*, 106(2): 71-77.

Westerling, A. L. and B. P. Bryant 2008: "Climate Change and Wildfire in California," *Climatic Change*, 87: s231-249. DOI:10.1007/s10584-007-9363-z.

Westerling, A. L. 2007: "Los incendios en el oeste de los EEUU y el cambio climatico" Chapter 2 in *Prevencion de los Desastres Ambientales: Una reflexion critica*, Ruiz de Elvira, Ed., (Spanish edition of immediately preceding publication).

Westerling, A. L. 2007: "Os incendios no oeste dos EEUU e o cambio climatico" Chapter 2 in *Prevendo os Desastres Ambientais: Unha reflexion critica*, Ruiz de Elvira, Ed., Monographias 06: Escola Galega de Administracion Publica, Santiago de Compostela, Galicia. ISBN 9788445344309..

¹ Note that this is the English version of number 12.

Spracklen, D. V., J. A. Logan, L. J. Mickley, R. J. Park, R. Yevich, **A. L. Westerling**, and D. Jaffe 2007: "Wildfires drive interannual variability of organic carbon aerosol in the western U.S. in summer," *Geophysical Research Letters*, 34, L16816. DOI:10.1029/2007GL030037.

Preisler, H.K., and **A.L. Westerling** 2007: "Statistical Model for Forecasting Monthly Large Wildfire Events in the Western United States" *Journal of Applied Meteorology and Climatology*, 46(7): 1020-1030.

Westerling, A.L., H.G. Hidalgo, D.R. Cayan, T.W. Swetnam 2006: "Warming and Earlier Spring Increases Western U.S. Forest Wildfire Activity" *Science*, 313: 940-943. * *Online supplement* *

Shachat, J., and **A.L. Westerling** 2006: "Information Aggregation in a Catastrophe Futures Market," *Managerial and Decision Economics*, 27: 477-495.

Westerling, A.L. and **B.P. Bryant** 2006: "Climate Change and Wildfire In and Around California: Fire Modeling and Loss Modeling," *Public Interest Energy Research, California Energy Commission. CEC-500-2005-190-SF*, Sacramento, CA.

Westerling, A.L., D.R. Cayan, T.J. Brown, B.L. Hall and L.G. Riddle 2004: "Climate, Santa Ana Winds and Autumn Wildfires in Southern California," *EOS*, 85(31): 289,296.

Brown, T.J., B.L. Hall and **A.L. Westerling** 2004: "The Impact of Twenty-first Century Climate Change on Wildland Fire Danger in the Western United States: An Applications Perspective," *Climatic Change*, 62: 365-388.

Westerling, A.L. and T.W. Swetnam 2003: "Interannual to Decadal Drought and Wildfire in the Western United States," *EOS*, 84(49): 545,554-5.

Westerling, A.L., T.J. Brown, A. Gershunov, D.R. Cayan and M.D. Dettinger, 2003: "Climate and Wildfire in the Western United States," *Bulletin of the American Meteorological Society*, 84(5) 595-604.

Westerling, A.L., A. Gershunov, D.R. Cayan and T.P. Barnett, 2002: "Long Lead Statistical Forecasts of Area Burned in Western U.S. Wildfires by Ecosystem Province," *International Journal of Wildland Fire*, 11(3,4) 257-266.

Westerling, A.L., 1992: "Climate Change and Chinese Energy Policy," *Journal of Public and International Affairs*, 3:71-90.

Other Published Writings

A. L. Westerling 2016. Wildfires in West have gotten bigger, more frequent and longer since the 1980s. *The Conversation*

Anthony LeRoy Westerling 2016. This year's wildfires are bad. Climate change will make future ones worse. 26 July 2016. *The Guardian*.

Westerling, A.L. 2012: "Fire: Are we facing an increase in wildfires?" *PAGES news*, 20(1):24-25.

Westerling, A.L. 2011: "Brevia: Climate Change Could Rapidly Transform Greater Yellowstone Fire Regimes" *Mountain Views: The Newsletter of the Consortium for Integrated Climate Research in Western Mountains (CIRMOOUNT)*, 5(2):30-32.

Smithwick, E.A.H., A.L. Westerling, M.G. Turner, W.H. Romme, M.G. Ryan 2009: *Climate, Fire and Carbon: Tipping Points and Landscape Vulnerability in the Greater Yellowstone Ecosystem*, Final Report 09-3-01-47, Joint Fire Sciences Program.

Preisler, H.K., and **A.L. Westerling** 2005: "Estimating Risk Probabilities for Wildland Fires," *Proceedings of the 2005 Joint Statistical Meetings*, Minneapolis, MN.

Shachat, J., and **A.L. Westerling** 2004: "Information Aggregation in Catastrophe Reinsurance Markets," *Economics Working Paper Archive*, Experimental Series #0403002. Washington University Economics Department.

Dettinger, M.D., D.R. Cayan, N.K. Knowles, **A.L. Westerling**, M.K. Tyree, 2004: "Recent Projections of 21st-Century Climate Change and Watershed Responses in the Sierra Nevada. USDA Forest Service Gen. Tech. Rep. PSW-GTR-193. Conference proceeding for the Sierra Nevada Science Symposium, Oct 7-10, 2002, Kings Beach, California.

Westerling, A.L., A. Gershunov and D.R. Cayan, 2003: "Statistical Forecasts of the 2003 Western Wildfire Season Using Canonical Correlation Analysis," *Experimental Long-Lead Forecast Bulletin*, 12(1,2).

Westerling, A.L., A. Gershunov and D.R. Cayan, 2001: "Statistical Forecasts of Western Wildfire Season Severity," *Proceedings of the 4th Symposium on Fire and Forest Meteorology*, Reno, Nevada, November 2001, pp 202-205

Westerling, A.L., D.R. Cayan, A. Gershunov, M. D. Dettinger and T. J. Brown, 2001: "Statistical Forecast of the 2001 Western Wildfire Season Using Principal Components Regression," *Experimental Long-Lead Forecast Bulletin*, 10:71-75.

Westerling, A. L., (2000), "Calculating Risks? The Spatial and Political Dimensions of Hazardous Waste Policy, by J. T. Hamilton and W. K. Viscusi," *Journal of Economic Literature*, 38, 684-686. Book Review.

Abstracts

Westerling, A. L., D. R. Cayan, T. J. Brown, B. L. Hall, L. G. Riddle, (2005) "Antecedent Climate, Santa Ana Winds and Autumn Wildfires in Southern California," *AMS Conference on Hydrology*, Vol. 19, (np).

Alfaro, E., **Westerling, A. L.**, Cayan, D.R., (2004), "Climate and Wildfire in Mountains of the Western United States," *Eos Transactions AGU*, Fall Meeing Supplement, Abstract U51A-07.

Westerling, A. L. and T. W. Swetnam, (2004), "A Long Term Perspective on Decadal Variability in Climate and Wildfire in the Western United States," *Eos Transactions AGU*, Fall Meeting Supplement, Abstract B43E-04.

Holmes, T. P., and **A. Westerling**, (2003), "A Century of Fire and Land Management in the Southern Sierra Nevada," *Proceedings of the Second International Wildland Fire Ecology and Fire Management Congress and Fifth Symposium on Fire and Forest Meteorology*, Orlando, Florida, October 2003.

Westerling, A. L., K. Gebert, G. Jones, K. Abt, J. Prestemon, A. Gershunov (2003), "Long Lead Statistical Forecasts of Wildland Fire Suppression Costs," *Proceedings of the Second International Wildland Fire Ecology and Fire Management Congress and Fifth Symposium on Fire and Forest Meteorology*, Orlando, Florida, October 2003.

Westerling, A. L., (2001), "Climatology of Western Wildfire and Experimental Long-Range Forecasts of Wildfire Season Severity," In 2001 Fire & Climate Workshops Proceedings, Tucson, Arizona, 2001. Gregg Garfin and Barbara Morehouse, Editors.

Westerling, A. L., A. Gershunov, D. R. Cayan, and T. J. Brown, (2001), "A Western United States Fire Climatology," In *Proceedings of the American Meteorological Society Symposium on Climate Variability, the Oceans and Societal Impacts*, Albuquerque, New Mexico, 2001.

Westerling, A. L., (2001), "Climate Variability and Large Storm Surge on the Pacific Coast of the United States," In *Proceedings of the American Meteorological Society Symposium on Climate Variability, the Oceans and Societal Impacts*, Albuquerque, New Mexico, 2001.

Westerling, A., (2000), "El Niño and One Hundred Years of Storm Surge in the Eastern North Pacific," *Proceedings of the 16th Annual Pacific Climate Workshop*, Santa Catalina Island, California, 1999.

GRANTS AND CONTRACTS

at UC Merced

Decision Pending

PI: *Empowering California's Vulnerable Communities through Climate Analytics for Adaptation*. \$6,383,787 (total requested 6.38 million, matching funds \$6 to \$9 million, UC Merced lead), **UC Climate Action Fund matching grant proposal**

Received

PI: *UC NRS Community-engaged pilot project: fuels management for climate enhanced fire risk reduction*. \$200,000. 2023-2025, **UC Climate Action Fund**

co-PI: *Effectiveness and optimization of forest fuels reductions for biodiversity conservation in a changing Sierra Nevada ecosystem* \$499,825 (Total, Peery via San Jose State is Lead PI. UC Merced \$100,000) 2020 - 2024 **CALFire**.

co-PI: *Assessment and mitigation of wildfire-induced air pollution* \$4,795,568 (including \$1,045,500 cost share from national labs and Electric Power Research Institute; UC Davis is lead PI. \$346,343 to Westerling at UC Merced). 2020 - 2023. **UC-National Lab Collaborative Research and Training Awards**

PI: *Pyregence (Comprehensive open source development of next generation wildfire models for grid resiliency)* \$5,000,000 (Total, Spacial Informatics Group is lead PI, Westerling is multi-institution lead PI for long term scenario modeling. \$484,169 to Westerling at UC Merced). 2019 - 2024. **California Energy Commission**.

PI: *Wildfire Scenario Modeling for Insurance Accessibility, Local Planning Improvements and Opportunities in California* \$169,738. (Total, Westerling at UC Merced) 2019 - 2021 **California Department of Insurance**

Investigator: *Center for Ecosystem Climate Solutions* ~\$4,700,000 (Total, UC Irvine lead, R. Bales UC Merced lead PI. \$118,421 to Westerling). 2019 - 2022. **Strategic Growth Council**.

PI: \$48,836 (UC Merced. Total is ~\$1,000,000. Lead is Ecology and Environment Inc.). 2018 - 2020. **San Mateo County/CalTrans**.

Co-PI: *Constructing Climate Resilient Communities, Landscapes and Coasts in California and Nevada* \$3,000,000-3,600,000 (Total. \$275,000 to Westerling at UC Merced). 9/1/2017 - 8/31/2022. **NOAA**.

Co-PI: *Climate Skeptics - who are they and how are they connected?* \$10,000 (Total/UC Merced). 2017-18. **UC Merced Senate Research Award**.

PI: *California-Nevada Applications Program (supplement)* \$30,000 (UC Merced). 2016-17. **NOAA** (multicampus agreement with UCSD/SIO).

Co-PI: *Climate and Health Interdisciplinary Research Program* \$2,148,949 (Total. \$413,994 to Westerling at UC Merced). 2017-21. **University of California Office of the President, Multicampus Research Programs and Initiatives**.

Co-PI: *Fire, fuels, management, and resilience: alternative scenarios for western conifer forests* \$418,249 (Total - U Wisconsin Prime. \$66,064 to Westerling at UC Merced). 2015-18. **Joint Fire Science Program**.

PI: *Wildfire Simulations for the Fourth California Climate Assessment* \$118,464 (Total). 2015-18. **California Energy Commission**.

co-PI: *Drought early warning for the California region*. \$420,000 (Total). 2015-2016 (NCE to 2017). **NOAA** (Multicampus agreement with UCSD/SIO).

PI: *Modeling Potential Fire Impacts with Landscape Vegetation Scenarios and Changing Climate for the Sierra Nevada and Other Areas in the Western U.S.* \$190,000 (Total). 2014-19. **USDA Forest Service**.

Co-PI: *Integrated effects of climate and management on western US forest wildfire and vegetation.* \$750,000 (Total. Penn State Prime. \$275,000 to Westerling at UC Merced). 2012-16. **USDA AFRI**.

Co-PI: *California-Nevada Applications Program (Recompete)*. \$3,000,000 (Total. UCSD prime). 2012-17. **NOAA**.

Co-PI: *California-Nevada Applications Program (2010-2012)*. \$700,000 (Total. UCSD prime). 2010-12. **NOAA**.

Co-PI: *California-Nevada Applications Program (National Assessment)*. \$315,000 (Total. UCSD prime). 2010-12. **NOAA**.

Co-PI (with Professor Kueppers at UC Merced): *Senate Faculty Research Award: Causes of Hydrologic Consequences of Conifer Encroachment Into High-Elevation Sierran Meadows* \$9,997 (total). 2011. **UC Merced**

Contractor: *Collaborative Research: CRI-EaSM Multiscale Modeling of Aerosol Indirect Effects on Decadal Time-scales*. 2011-16. **NSF** (with EPA, DOE).

PI: *Senate Research Award*. \$1,250 (total). 2010-present. **UC Merced**

PI: *Gridded Seasonal Wildfire Outlook for the Western United States*. \$75,000 (total). 2010-2012. **US Forest Service, National Wildfire Coordinating Group**

Co-PI: *California Vulnerability and Adaptation Study*. \$4,343,489 (total UC). 2010-2011. **California Energy Commission**

Co-PI: *Climate, Fire and Carbon: Tipping Points and Landscape Vulnerability in the Greater Yellowstone Ecosystem*. \$140,653. 2009-2010. **Joint Fire Sciences**

PI: *Climate Change Impacts for California Wildfire*. \$70,000. 2008-2009. subcontract: **California Energy Commission/PIER/California Climate Change Center**

PI: *Extreme Value Statistics for Forest Wildfire*. \$25,000. 2007-2011. **USDA Forest Service** Southern Research Station.

PI: *Great Valley Climate Almanac*. \$20,804. 2006- 2007. **Great Valley Center/Hewlett**.

PI: *CEC/Barnett Research Subcontract*. \$72,000. 2006-2007. Scripps Institution of Oceanography/**California Energy Commission**

PI: *CAP Research Subcontract*. \$205,000. 2006-2009. Scripps Institution of Oceanography/**NOAA OGP**

PI: *Fire Research at a Landscape Scale*. \$250,000. 2006 - 2011. **USDA Forest Service PSW**

at Scripps Institution of Oceanography

Co-I (PI T. Barnett): *Climate Forecasts for Improving Management of Energy and Hydropower Resources in the Western United States*. \$400,000. 2005-2007. **NOAA CDEP**

Co-I (PI T. Barnett): *Climate Forecasts for Improving Management of Energy and Hydropower Resources in the Western United States*. \$200,000. 2005-2008. **California Energy Commission**.

Co-I (PI D. Cayan): *Assessing Potential Impacts of Climate Change on California*. \$480,000. August 17, 2005 – May 17, 2006. **California Energy Commission**

Co-I (PI D. Cayan): *California Applications Program*. \$520,000. May 1, 2005 – Dec 1, 2005. **NOAA OGP**

PI: *Regional Predictions of Annual Area Burned for the U.S. Forest Service*. \$22,000. 2005 - 2008. **USDA Forest Service**: National Fire Plan Grant via Rocky Mountain Research Station.

PI: *Incorporating Vegetation Management into Wildfire Area Burned Models*. \$36,000. 2003 - 2005. **USDA Forest Service**: National Fire Plan Grant via Southern Research Station

TEACHING - SELECTED COURSES

GEOG 141/ESS 141/ENGR 141 Environmental Science and Policy

In-depth analysis of environmental case studies. Focus on science critical to policy development and implementation, the policy-making process and policy outcomes. Special emphasis on interaction between scientific information and policy-making. Example topics include Western water resources, biodiversity conservation and global warming. Emphasis on written and oral communication and critical analysis.

GEOG 142 Geography of Resource Management

Climate and biogeography of Western US relevant to Forestry, Fire, and Water Resources management introduced via the writings of 19th Century explorers and surveyors of the West and recent scientific literature. Analyze role of climate and biogeographic information in public resource management policy debates of 1870s-1910s versus present day. Geographic perspective on long term repercussions of early 20th Century resource management policy choices.

ESS 132/ENVE 116/ES 232 Applied Climatology

Spatial and temporal patterns in climate and their association with land surface characteristics and processes. Methods for exploiting these for hypothesis testing, modeling, and forecasting. Applications include seasonal forecasting, ecological modeling, and analysis of processes such as flooding and wildfire.

ENVE 118 Global Change

Detection of, adaptation to, and mitigation of global climate change. Climate-change science, sources, sinks, and atmospheric cycling of greenhouse gases. Societal context for implementing engineered responses. Assessment of options for responding to the threat of climate change.

MIST 130 Statistical Data Analysis and Visualization in R Language for Decision Support

Practice of statistical analysis and visualization for decision support in the R programming environment. Graphing, correlation, regression, distribution fitting, scenarios, sensitivity analysis, simulation. Resource management and services examples, case driven, team focussed.

PROFESSIONAL ACTIVITIES AND SERVICE

Professional Association Memberships

American Geophysical Union
International Association of Wildland Fire
Association for Fire Ecology
American Association for the Advancement of Science
Sigma Xi, The Scientific Research Society (treasurer '07-'09, vice-president '09-'10, president '10-'11, UC Merced Chapter Charter member)

University Service - UC Merced

Systemwide, Senate and Campus-level service

Chair, UC Disaster Resilience Network, 2022 - 2024
Member, UC working group on the future of undergraduate education, 2022 - 2023
Member, UC systemwide Academic Planning Council, 2021-2023
Member, UC systemwide Academic Council, 2021-2022
Chair, Merced Division of the Academic Senate 2021-2022
Member, Search committee for AVC/CHRO
Vice-Chair, Merced Division of the Academic Senate 2020-2021
Member, UC Academic Senate Climate Crisis Task Force working group, Spring 2020. (*UC Senate working group to develop a task force charge and recommend membership for the UC Systemwide Climate Crisis Task Force*).

Co-Chair, Curriculog and CRF Approval Process Revision Working Group, 2019 - 2020 (*joint faculty - staff working group to revise and streamline Curriculog software, analyze, revise and streamline CRF approval process workflow, revise relevant GC and UGC policy, establish new Canvass syllabus content pages created by GC and UGC annually, supported by IT. Westerling initiated this process with a review of Curriculog in 2018-19 and proposed and co-chaired the WG for 2019-20 with UGC Chair Sharping*)

Vice Chair, Teacher Preparation Program Working Group, 2019 (*Joint GC - TPP working group to institutionalize oversight of TPP programs offered through extension*).

Member, Sponsored Projects Services Redesign Advisory Board, 2019 - 2020 (*this WG didn't last long, but Westerling began working directly to lobby for improvements with EVC/Provost, VC Research (current and interim) and others after it was disbanded*).

Chair, Graduate Council of the Merced Faculty Senate, 2018 - 2020 (*Initiatives included Curriculog/CRF process revision; resources and policy transparency for graduate education and*

research aligning with R1 status goals; review of campus management of Grad student/advisor conflict resolution, resulting in creation of a faculty-admin working group to revise campus policy and resources; review of institutional oversight challenges for the TPP and creation of a working group to reform oversight institutions, policy and practice).

Member, UC Coordinating Committee on Graduate Affairs, 2018 - 2020 (*Primarily leading reviews of new graduate programs, including self-supporting masters degrees and a dual degree program*).

Member, UC Merced Divisional Council, 2018 - 2020

Vice Chair, Graduate Council of the Merced Faculty Senate, 2017 - 2018

Member, Joint UC Merced Senate - Administration Periodic Review Oversight Committee, 2017 - 2018

Member, UC Merced Faculty-Administration Joint Budget Working Group, 2017 - 2018

Member, Merritt Writing Program Director Search Committee 2016 - 2017

Member, UC Merced Provost and EVC Search Advisory Committee, 2011-12

Member, UC Merced Academic Senate Committee on Committees, 2009 - 2011

Sierra Nevada Research Institute Advisory Committee member, 2008 - 2012??

UC Merced Campus-wide Academic Strategic Planning Committee member, 2007 - 2008.

Graduate Research Council, UC Merced Academic Senate 2006 - 2007.

School, Cross-School and Department level service

Chair, Department of Management of Complex Systems, 2023-25

Director, Management of Innovation, Sustainability and Technology Master of Management Degree program, 2023-2025

Chair, tenure and promotion committee, 2021-22

Chair, promotion committee, 2021-22

Member, MCS Committee on Equity and Social Justice 2020-2021

Member, Merit Review Committee, Department of Public Health 2019 - 2020

Chair, Merit Review Committee, Department of Management of Complex Systems 2019 - 2020

Member, Merit Review Committee, Department of Management of Complex Systems 2019 - 2020

Member, Gallo Executive Committee, 2019 - 2020

Member, Gallo Proposal Core Committee, 2018 - 2020

Chair, Management of Complex Systems Faculty Search Committee (2 positions), 2018-2019

Chair, Ad Hoc Management of Complex Systems Faculty Search Committee (spousal hire), 2018-2019

Chair, MIST Graduate Group, 2017 - 2018

Co-Chair, MIST Search Committee (2 positions) 2016 - 2017

Co-Director, Sierra Nevada Research Institute, 2016 - 2017

Co-Director, Center for Climate Communication, SNRI, 2016 - 2019.

Management proto-department and Grad Group Executive Committee, Member, 2015 - 2018
(*Creating Undergraduate, Professional Masters and Doctoral programs and curriculum, and Management Department. Faculty recruitment and mentorship. Development of research and teaching strategy and identity. Planning for establishment of School of Management in five years. Westerling led final MM and PhD proposals, first round of undergraduate minor proposal.*)

Member, MIST Search Committee (3 Open Rank positions) 2015 - 2016.

Co-Chair, Natural Resource Management and Parks/Protected Places Management Search Committee (Open Rank) 2015 - 2016.

Chair, Natural Resource Management and Parks/Protected Places Management Search Committee (Open Rank) 2014 - 2015.

Environmental Systems Graduate Group Executive Committee, 2013 - 2016.

Asst Prof in Ecological Theory/Modeling Search Committee, member, 2013-2014

Asst Prof in Evolutionary Biology Search Committee, member, 2013-2014

Environmental Systems Graduate Group Educational Policy Committee Chair, 2009 - 2016??

Chair, Environmental Engineering Water Resources/Energy/Informatics Search Committee (Assistant/Associate Professor) 2011 - 2012.

Founding Management Search Committee, Member, 2010-2011.

Environmental Systems Graduate Group Educational Policy Committee Chair, 2009 - 2013

Chair, Sustainability Science Search Committee (Assistant/Associate Professor) 2006 - 2007.

Chair, Environmental Systems Grad Group Admissions Committee, 2006 - 2008 (2007-08 Chair)

Management Search Committee (Assistant Professor) 2006 - 2007.

Management Search Committee (Senior) 2006 - 2007.

UC-wide California Climate Solutions Institute proposal to the PUC. UC Merced faculty representative with Roger Bales.

Ad Hoc Reviewer - Manuscripts

Science, Nature, Proceedings of the National Academy of Sciences, Can J Forest Res, Ecol, Int J Wildland Fire, Global Change Bio, Global Ecol Biogeogr, GRL, B Am Meteorol Soc, Forest Sci, J Geophys Res-Atmos, West N Am Naturalist, Ecol Model, Ecol Appl, Int J Climatol, J Climate, J Agr Forest Meteorol, Climatic Change, Weather and Forecasting, PNAS, Phys. Geog., etc.

Ad Hoc Reviewer - Career

USDA Forest Service

Ad Hoc Reviewer - Grants

NOAA, NSF

Public and Professional Service

Community Wildfire Vulnerability Index for Risk Assessment and Response Planning using Earth Observation (EO) Data and Modeling. Fire Protection Research Foundation. Project Technical Panel. Member. 2023 - present

Climate Working Group, NOAA Science Advisory Board. Member. 2021 - present

Forest Carbon Action Team, Science Advisory Team, State of California, November 2014 - ?. **NOAA Visiting Scientist Program**, Postdocs Applying Climate Expertise, Supervisory Committee Member, September 2014-2018.

State of California and the Pacific Council on International Policy, Climate Adaptation Advisory Panel, November 2009 - June 2010, Fire sub-panel Team-Leader.

Sigma Xi Research Society, Merced Chapter, Spring Symposium, Climate Change Science and Governance, 15 April 2010, Merced, CA, symposium organizer.

National Academy of Sciences Workshop on Strategic Advice on CCSP 19-20 March 2008, Boulder, Colorado, participant.

U.S. House of Representatives, Committee on Appropriations, Subcommittee on Interior, Environment, and Related Agencies, 12 February 2008, Washington D.C., Hearing: Wildland Fire Management, invited testimony.

Environmental and Energy Study Institute Briefing, Effects of Climate Change on Forest Resources, 11 February 2008, Washington D.C., Climate Change Impacts on Western Forest Wildfire, invited briefing.

National Academy of Sciences Board on Atmospheric Sciences and Climate Meeting, 12-13 November 2007 Irvine, CA. Climate Services in California and Technology Transfer from Academia, Invited Presentation.

U.S. Senate, Committee on Energy and Natural Resources, Hearing: Impacts of Global Climate Change on Wildfire Activity in the United States, 24 September 2007, Washington D.C., invited testimony, with Dr. Swetnam.

U.S. House of Representatives, Committee on Natural Resources, Subcommittee on Energy and Mineral Resources, Oversight Hearing, 20 March 2007, Longworth House Office Building, Washington, DC, Hearing: Towards a Clean Energy Future: Energy Policy and Climate Change on Public Lands, Invited testimony.

National Academy of Sciences Workshop on the Impacts of Climate Change on Federal Lands, 2-3 November 2006, National Academies, Washington, DC, Forest Ecosystems Panel, Invited Panelist.

American Meteorological Society Environmental Science Seminar Series: Drought, Water, Wildfires and Climate Change in the Western US - Historical Context and the Road Ahead, 25 September 2006, Russell Senate Office Building, Washington, DC, Climate Change and Forest Wildfire in the Western US, invited briefing. <http://www.ametsoc.org/atmospolicy/environmentalssarchives.html>

Climate Change Briefing for **California State Senator Kehoe** 13 July 2006

Presentations, Workshops, Panels, Seminars...

2nd Annual Wildfire Induced Air Pollution Assessment & Mitigation Symposium, UC Davis, 23 March 2022, invited presentation: New Data Sets and Methods for Statistical Wildfire and Emissions Modeling

IWRMC, webinar presentation, Comprehensive Open-Source Development of Next Generation Wildfire Models, 15 March 2022

San Mateo FireSafe Council, invited presentation, Fire modeling for California's 4th and 5th Climate Assessments, 10 March 2022

UC Wildfire Symposium, invited presentation, Comprehensive Open-Source Development of Next Generation Wildfire Models, 4 June 2021

ANR Climate Resiliency Collaboration Forum, invited presentation, Comprehensive Open-Source Development of Next Generation Wildfire Models, 24 September 2021

ESP MWPA, invited presentation, Pyregence: Fire modeling for California's State Climate Assessment, 14 April 2021

NSF-CREST Center for Cellular and Biomolecular Machines, Science for Humanities, invited presentation, Pyregence Consortium: Open Source Wildfire Simulations for the 5th California State Climate Assessment, 29 April 2021

Fire Advisory Council - Mariposa County, invited presentation, Pyregence Consortium Overview - Fire modeling for California's 5th Climate Assessment: Open Source Next Generation Wildfire Models, 11 December 2020

IEEE-PES, UC Berkeley, invited presentation, Pyregence Consortium Overview: Fire modeling for California's 5th Climate Assessment: Open Source Next Generation Wildfire Models, 21 December 2020

ACCG & Upper Mokelumne River Watershed Authority, invited presentation, Forest Fire Research and Simulations for the Fifth California Climate Assessment, 21 October 2020

Wildfire UCOP Lab Fees Symposium: Modeling changing wildfire and climate risks and their effects on air pollution 23 March 2020 UC Davis Climate Adaptation Research Center (Virtual)

Forum on Climate and Finance, Jesus College, Cambridge UK; The new abnormal: Fires and non-stationarity in a warming and drying climate 1-6 March 2020 Cambridge and London, UK

Forest Resilience Stakeholder Outreach Workshops: Learning About Resilient Futures: Regional fire simulations 17-21 February 2020 Bozeman and Missoula MT

Stanford University Department of Earth System Science Seminar: Climate change and wildfire impact assessment for California 15 January 2020 Palo Alto CA

CEC Workshop: Climate projections, analytics, and data platform to support anticipated California's Fifth Climate Change Assessment 15 December 2019 Sacramento CA

Association for Fire Ecology Annual Meeting, Statistical fire modeling and multi-scale scenario analysis and assessment 20 November 2019 Cultivating Pyrodiversity Tucson, AZ

UC Center Sacramento Seminar: California's Changing Wildfire and Climate Risks: Research in Support of Resilience, LeRoy Westerling and Susan Wilhelm, 23 October 2019 Sacramento CA

Climate Dynamics School - Yosemite: Wildfire climatology and scenario analysis in support of climate risk assessment and adaptation planning 1 October 2019 Yosemite Field Station

Wildfire climatology and scenario analysis in support of climate risk assessment and adaptation planning 18 September 2019 **BASC Seminar**, UC Berkeley

Panel 1: Physical Risk Assessment, Impact Mitigation, and Insurance, California Climate Risk Symposium: Insurance-Based Approaches to Mitigation and Resilience, sponsored by **California Department of Insurance, the UN Environment Programme**, and UCLA and UC Berkeley Schools of Law 23 July 2019 at UCLA School of Law

Projecting Changes In Extreme Wildfire Events With A Warming Climate 19 June 2019 **Electric Power Research Institute**: Big Sky, MT

FireStorm: Wildfires and Climate Change. **Organizing for Action**, Marin, 8 May 2019 San Rafael, CA

Wildfire and Climate in a non-stationary world 30 April 2019, **AMP**, Fresno, CA

Wildfires in the West 28 April 2019 **National Parks Institute**, Tenaya Lodge, Fish Camp, CA

Wildfires in the West have gotten bigger, more frequent and longer since the 1980s 6 April 2019 **UCSF Fresno, CA**

Climate and Wildfire 4 April 2019, **ENG 140 guest lecture, UC Merced**

Climate Ready San Mateo County: Transportation Impacts of Climate Change, March 25 2019 San Mateo County

Recent changes in western US wildfire and their context, 15 March 2019, **FERAL Lecture, UC Davis**

California's new fire regime: Modeling our risk to spark solutions 13 March 2019 **San Mateo County**

Changing California Wildfire 25 February 2019 **California Energy Commission**, Sacramento, CA

Recent Changes and Long Term Context for Western US Wildfire, 18 February 2019 Asilomar, CA, **PACLIM 2019**

Recent Changes and Long Term Context for Western US Wildfire, 15 February 2019, CSU Fresno. Department of Biology Friday Seminar

Projecting fire into the future: what are the implications for fire ecology and forest health under climate change scenarios? Fire and Forest Health in the 21st Century 5 February 2019 Fish Camp, CA, USFS

Webinar: Changing Fire in California. Dec 10 2018. California Energy Commission

Wildfire Response to Climate Change in California's San Joaquin Valley and Sierra Nevada, California Energy Commission, Fresno, CA December 5, 2018

Natural Disaster Prevention and Response: Drivers of increasing fire activity and impacts in California, 2018 UC Legislative Policy Forum, University of California, Berkeley, University House, December 4, 2018

Climate Change, Wildfire and the End of Stationarity: Challenges for imagining futures to guide adaptation and mitigation planning, 7 November 2018, Environmental Systems Seminar, UC Merced, CA

Fire in the Nest, 26 October 2018, Resilient Communities, Eagles Nest, New York

The West Aflame: Climate and wildfire in the western US in a long term context, 10 Oct 2018, UCM Spark Presentation

Climate change and wildfire impacts, October 5 2018, UC Merced Advisory Board Meeting

BUILDING STRONGER PATHWAYS TO RESILIENCY. Through the San Mateo Climate Collaboration, Vulnerability, and Adaptation Project, August 9, 2018, San Mateo, CA

Our Changing Climate and Extreme Wildfires in California and the West" TUESDAY, JULY 31 | 7:00 PM - 8:00 PM | SSB 170 Science for Humanity: Professional development for High School

Students https://ccbm.ucmerced.edu/sites/ccbm.ucmerced.edu/files/documents/step_2018_science_for_humanity_uc_merced_series_flyer_o.pdf

May 21-24 Missoula MT The Fire Continuum Conference: Preparing for the future of wildland fire, Association for Fire Ecology S5.8: Simulation of extreme wildfire events and impacts across spatial and temporal scales with statistical and dynamical models

Fire: Science, Climate and the Future Science of Management, 150th Anniversary of the University of California, Yosemite NP, CA 18 May 2018

Wildfire Response to Climate Change in California's Central and North Coast Ranges, Living with Fire in California's Coast Ranges, Sonoma State University, May 8, 2018

Storytelling for Forest Management: Imagining Sierra Nevada Futures, Southern Sierra Leadership Forum, 2 May 2018, Sequoia NP, CA

The West Aflame: Recent trends in climate and wildfire in the western US in a long term context 27 April 2018, SIO CASPO, La Jolla, CA

Extreme Fire: Climate Change, Wildfire Litigators annual meeting, 28 April 2018, Coronado, CA

Climate-vegetation-wildfire interactions in the western United States, 12 April 2018, European Geosciences Union Annual Meeting, Vienna, Austria

Western water & climate change: An overview, Merced Chamber of Commerce, Dec 15, 2017, Merced CA

Changing Western US Wildfire Regimes: Sensitivity to a Rapidly Changing Climate 27 November 2017, 7th International Fire Ecology and Management Congress, Orlando FL

Simulation of extreme wildfire events across spatial scales, Columbia University, 2017 Conference on Fire Prediction Across Scales October 23-25 2017

Yosemite National Park, Department of Interior, Wildland Fire Resource Advisor Training Course N-9042, 11 May 2017, invited speaker

California Energy Commission, **California Climate Change Symposium 2017**: Science to Safeguard California, 25 January 2017, Sacramento CA, Changing wildfire regimes, invited presentation and panelist.

Society of Environmental Journalists 26th Annual Conference, Panel: Living With Fire, 23 September 2016 Sacramento, CA. Invited panelist.

USDA Forest Service, Forestry Sciences Laboratory, University of Georgia, 19-23 September 2016 Athens, GA. Workshop participant: systematic map of the drought/fire/carbon nexus

University of California social media, Twitter chat, 10 August 2016 Climate Change and California Wildfires

NOAA VSP/PACE, NOAA Summer Institute, 24-28 July 2016, Steamboat Springs, CO.

National Wildlife Federation and U.S. FWS National Conservation Training Center, 22 June 2016, Webinar, Increasing Western US Forest Wildfire Activity: Sensitivity to changes in the timing of Spring, invited presentation

California Energy Commission, Coordination of energy-related research projects for California's Fourth Climate Change Assessment, 20 April 2016, Webinar, Fire Scenarios for the 4th California Climate Assessment.

California Energy Commission, 22 March 2016, Sacramento, CA Developing new wildfire scenarios for the energy sector, LeRoy Westerling and Erica Fleishman.

Mariposa Democratic Club, Mariposa, CA 12 March 2016 Climate, Fuels and Wildfire: how forest management and climate change are shaping forest wildfire frequency, size, severity and emissions., invited presentation.

Cat Risk Management 2016, Orlando, FL 17 February 2016 Climate, Land Use, and Wildfire Interactions in the Western United States, invited presentation.

American Geophysical Union Fall Meeting, The Role of Fire in the Earth System: Understanding Drivers, Feedbacks, and Interactions with the Land, Atmosphere, and Society, 17 December 2015, San Francisco, CA, Effects of Climate and Fuels Management on Wildfire Occurrence, Size, Severity and Emissions in the Sierra Nevada, invited presentation.

Environmental Systems Particulate Seminar, UC Merced, 2 November 2015, Merced, CA, Climate and land use effects on wildfire emissions in the Sierra Nevada. invited lecture.

Royal Society Discussion Meeting, The interaction of fire and mankind, 15 September 2015, London, United Kingdom, Climate Change and Wildfire, invited presentation.

California Energy Commission, California Climate Change Symposium 2015: Using Climate Science to Plan for a resilient future. 25 August 2015 Sacramento CA, Interactive effects of climate change and fuels management scenarios on wildfire activity and emissions in Sierra Nevada forests, invited presentation.

Mariposa County Workshop: Health impacts from climate change in Mariposa County, 20 May 2015, Mariposa CA, Climate change, forest management and particulate pollution emissions from wildfires. invited presentation.

Council of Western State Foresters and the Western Forestry Leadership Coalition, The Future of Forestry in a Changing Climate, Complexities of Wildland Fire and Dynamic Western Systems, 13 May 2015, San Francisco, CA, Climate, Wildfire and Management in Western Forests, invited presentation,

California Energy Commission, Staff Workshop on Selecting Climate Scenarios for the California Energy Sector, Secondary Scenarios for the Energy Sector, 27 February 2015, Sacramento, CA, Developing new wildfire scenarios for the energy sector: a proposed approach, Invited presentation

Office of the State Fire Marshal, CalFire, Land Use Planning Unit, 13 November 2014, Sacramento, CA, Invited discussant.

UC Center Sacramento, State Capitol Interns Luncheon, 13 November 2014, Sacramento, CA, invited discussant

UC Center Sacramento Speaker Series, University of California Center Sacramento, 13 November 2014, Sacramento CA, Climate change and wildfire in California's forests: how might forest management affect our vulnerability to climate change? invited presentation

Tahoe Science Consortium, Tahoe Climate Science Symposium 2014, 13 November 2014, Incline Village, Nevada, Climate Change, Fuels Management and Wildfire in Sierra Nevada Forests, invited presentation.

R20, CalEPA/ARB, USC Schwarzenegger Institute, California Leadership on Climate Change: Lessons for Paris, 8 September 2014, CalEPA, Sacramento, CA The Economic Cost of Climate Change, Why We Cannot Afford Inaction. invited panelist.

California Energy Commission, Staff Workshop for California's Fourth Climate Change Assessment, 25 August 2014, Sacramento, CA

Ecological Society of America Annual Meeting, Understanding and Managing Ecological Resilience to Natural Disasters in a Changing Environment, 14 August 2014, Sacramento, CA, Controls and consequences of forest wildfires under a changing climate, contributed presentation.

Ecological Society of America Annual Meeting, Arctic, Alpine, Antarctic Systems, 14 August 2014, Sacramento, CA, Life stage filters on conifer encroachment into subalpine meadows in the central Sierra Nevada, California, contributed presentation (with Kaitlin Lubetkin).

Ecological Society of America Annual Meeting, Understanding and Managing Ecological Resilience to Natural Disasters in a Changing Environment, 14 August 2014, Sacramento, CA, Examining the impact of changes in climate and vegetation on future fire activity in the Sierra Nevada Mountains, California, contributed presentation (with Alisa Keyser).

Climate Action Team Public Health Workgroup, CA Dept of Public Health, CalEPA/ARB, Wildfire and Health in a Changing Climate, 22 July 2014, CalEPA Sacramento CA, Wildfire Risk Projections. Invited.

NOAA VSP/PACE, NOAA Summer Institute, 16 July 2014, Steamboat Springs, CO, Climate, wildfire and management as drivers of change in western US forests.

California Governor's Office, California Climate Change Science and Policy Briefing, Panel 1: Impacts on Ecosystems, Water, Snow and Heat, 29 May 2014, Governor's Council Room, California State Capitol, Sacramento, CA. Invited panelist.

California Energy Commission, Staff meeting on Climate Scenarios for the California Energy Sector, 19 May 2014, Sacramento CA.

Western Forest Insect Work Conference, Plenary Session II, 1 April 2014 Sacramento CA, Recent and projected changes in western US forest wildfire activity, invited plenary presentation.

Tahoe Basin AFRI stakeholder meeting, 26 March 2014, Lake Tahoe Basin Management Unit, South Lake Tahoe, CA, Sierra Nevada Regional Fire Emissions Workshop

Sierra Nevada Research Institute Research Symposium, UC Merced, 10 March 2014, Merced, CA, California Drought and Effects

American Geophysical Union Fall Meeting, Creating Policy-Relevant Resource Management Science under Climate Change, 9 December 2013, San Francisco, CA, Climatic water deficit and wildfire: predicting spatial patterns in forest ecosystem sensitivity to warming and earlier spring snowmelt. invited presentation.

Modesto Area Partners in Science Symposium, 22 November 2013, Modesto JC West Campus, Modesto, CA. Climate and Wildfires in the West. Invited presentation.

Summerville High School, World Geography Class, 26 September 2013, Tuolumne CA, invited lecture.

Pinchot Institute and Senator Wyden, Forest Conservation in the Anthropocene: Adaptation of Science, Policy and Practices, Panel 2: Uncharted Territory: Assessing vulnerability and developing options for sustaining key values and services from forest ecosystems under conditions of elevated uncertainty, 17 September 2013, US Capitol Visitors Center, Washington, D.C., invited presentation.

Senator Carol Liu (host), State Senate District 25, and Union of Concerned Scientists, Insurance in an Era of Climate Change, 28 June 2013, Pasadena Central Library, Donald R. Wright Auditorium, Pasadena, CA, Climatic and Demographic Scenarios for Wildfire in Southern California, invited presentation

National Park Service, Climate Change in America's National Parks Webinar: Changing Fire Regimes, Management, and People in the Sierras and Yellowstone National Park, June 13 2013, invited seminar and panel.

Woods Institute for the Environment & IPCC, Uncommon Dialogue: Managing the Risks of Extreme Climate Events and Disasters, 11 April 2013, Stanford University, Palo Alto, CA. invited round table participant and presenter.

Union of Concerned Scientists, Climate Science Information Day, California State Legislature, Sacramento, CA, 3 April 2013. invited participant. (UCS sponsored leading scientists from

around the state to visit legislators in Sacramento to educate them on climate impacts in the state and hear their concerns and information needs)

Robert Fore Fellowship presentation in Wawona, Yosemite NP 23 March 2013 (invited presentation/outreach on fire and climate science to Merced County high school science teachers)

California Landscape Conservation Cooperative and USDA Forest Service, Vulnerability Assessment Workshop for the Climate Adaptation Project for the Sierra Nevada, Sacramento, CA, 7 March 2013. Climate, Land Use and Wildfire in California, invited presentation and workshop participation (Westerling is a member of the Science Advisory Board).

National Climate Assessment Southwest Region Townhall 18 January 2013, La Jolla, CA, National Climate Assessment Southwest Region: Wildfire and Ecosystems, invited presentation

National Wildfire Coordinating Group annual Fire Environment Committee meeting, December 11, 2012 (via webinar), Climate Change and the Fire Environment, invited presentation

Association for Fire Ecology biennial International meeting, Portland, OR Dec 4, 2012, Incorporating lightning scenarios into seasonal fire forecasts over California and Nevada, contributed presentation

Yosemite Hydroclimate Workshop, 12 October 2012 Yosemite National Park, CA, Seasonal Wildfire Forecast Models.

Boulder County, Wildfire Awareness Month Regional Forum, 19 October 2012, Golden, CO Climate and Forest Wildfire in the Mountain West: Understanding our changing risks. Invited presentation and stakeholder outreach workshop.

International Association of Hydrological Sciences, International Commission on Continental Erosion, International Conference on Wildfire and Water Quality: Process, Impacts & Challenges, 11 June 2012, Banff Centre, Banff, Alberta, Canada. Climate and Wildfire in Western US Forests, invited, opening plenary presentation.

National Parks Institute, April 2012, Merced CA and Yosemite CA, Climate Change and Wildfire in Yellowstone National Park, organized curriculum for a National Parks training program and led a 1-day training exercise on wildfire and climate change in Yellowstone.

Sierra Nevada Research Institute Research Symposium, UC Merced Research Week, 16 April 2012, Climate Change and Wildfire in Yellowstone, invited presentation

Willowbridge Bookstore, Public Seminar, 11 February 2012, Oakhurst, CA, Climate Change and Extreme Fire Seasons in the Southern Sierra, invited presentation.

California Department of Water Resources, Los Angeles County Department of Public Works Headquarters, Alhambra, CA, Department of Water Resources Workshop, 31 January 2012, Alhambra, CA, Climate Change and Wildfire Extremes, invited presentation.

California Climate Change Center, Scripps Institution of Oceanography, Vulnerability and Adaptation to Extreme Events in California in the Context of a Changing Climate: New Scientific Findings, 13 December 2011, La Jolla, CA, Climate Change and Wildfire Extremes, invited presentation.

American Geophysical Union, Fall Meeting, December 2011, San Francisco, CA, Effects of climate change on climatic water deficit and wildfire in Greater Yellowstone Ecosystem forests

Department of Interior, National Park Service, 30 November 2011, Interior Building, Washington, D.C., Climate and Wildfire in the Western US.

NOAA Climate Program Office, 30 November 2011, Silver Spring, MD, Climate and Wildfire in the Western US.

SERDP/ESTCP Partners in Environmental Technology Technical Symposium and Workshop: Meeting DoD's Environmental Challenges, Role of Fire in the Carbon Cycle under Climate

Change, November 2011, Washington, D.C., Climate Chang Fuels and Wildfire, invited presentation.

Fisheries and Wildlife Service, Annual Fire Management Officers Meeting, November 2011, San Luis National Wildlife Refuge, Los Banos, CA, Climate and Wildfire in the Western US, invited presentation.

Public Interest Energy Research, California Institute for Energy & Environment, Bay Area Vulnerability and Adaptation Meeting, 26 September 2011, University of California, Berkeley, CA, Bay Area Wildfire Scenarios, invited presentation.

US Climate Variability and Prediction Research Program/National Corporation for Atmospheric Research Advanced Study Program Researcher Colloquium, June 2011, Boulder, CO, Western US Climate and Fire Extremes: Issues in scale, uncertainty, systems interactions and thresholds, invited presentation.

The Yosemite Forum, May 2011, Yosemite National Park, CA, Managing Fire in a Changing Climate: A tale of two parks, invited presentation.

University of California Center Sacramento Public Policy Seminar, March 2011, Sacramento, CA, Climate Change and Wildfire in the Sierra Nevada, invited presentation.

Southern Sierra Fire Management Scenario Planning Pilot Project, National Parks Service, Southern Sierra Fire Management Alternatives Workshop, February 2011, Fresno, CA, Fire-Climate connections in the southern Sierra Nevada, invited presentation.

California Energy Commission, Second Coordination Meeting, Vulnerability and Adaptation Study, February 2011, Sacramento, CA, Adaptation Strategies for Climate Change Impacts on Wildfire in California, invited presentation.

University of California, Merced, Environmental Systems Graduate Seminar, February 2011, Fire regime effects of anthropogenic changes in Rocky Mountains Climate and Hydrology, invited presentation.

Yellowstone Biennial Conference, October 2010, Mammoth Hot Springs, Yellowstone National Park, Fire Regime Effects of Anthropogenic changes in Rocky Mountains Climate & Hydrology

Chancellor's Task Force on Community Engaged Scholarship, UC Merced Conference on Community Research and Scholarship, October 2010, Merced, CA, Fire Science for Western U.S. Land Managers, invited presentation.

Geneva Association, MORE 24 Seminar, June 2010, Bermuda Underwater Exploration Institute, Hamilton, Bermuda, Wildfire Risk Map, invited presentation.

National Park Service, Yosemite Fire Science Symposium, April 2010, Yosemite National Park, CA, Climate Change Impacts on Wildfire in the Sierra Nevada, invited presentation.

UC Davis, Land, Air and Water Resources, 2010 Seminar Series, 27 January 2010, Davis, CA, Climate and Wildfire in California and the Western US, invited seminar.

American Geophysical Union, Fall Meeting, 15 December 2009, Fire Regime and Ecosystem Effects of Climate-driven Changes in Rocky Mountains Hydrology, contributed presentation.

World Association of Former United Nations Interns and Fellows, Innovation Talks II: Climate Change, Disaster Response, and Public-Private Partnerships, 19 November 2009, Trusteeship Council Chambers, United Nations Headquarters, New York, NY. Climate Change and Wildfire: Policy Formulation for Peace, Security and Sustainable Development, invited presentation.

Pacific Council on International Policy, California's Adaptation to Climate Change Task Force Meeting II, 10 November 2009, San Francisco, CA, Fire and Climate in the West: Assessing the Threat, invited presentation.

The Nature Conservancy and USDA Forest Service; Fire, Landscapes and People Collaboration; Forging Fire Alliances in a Changing Climate, 3-4 November 2009, Arlington, VA, Perspectives on Fire and Climate in the Western US: 1600-2099, invited luncheon speaker.

UC Merced Cognitive and Information Sciences, Mind, Technology and Society Seminar Series, 19 October 2009, Merced, CA, Statistical Analysis and Modeling of Climate-Wildfire-Vegetation Interactions in California and the Western US, invited presentation.

Yosemite National Park, Yosemite Hydroclimate Conference, 8 October 2009, Yosemite Valley, CA, Implications of the 2008 California Climate Change Impact Assessment for Wildfire in the Sierra Nevada, contributed presentation.

UC Merced, Environmental Systems Seminar, 23 September 2009, Merced, CA, Climate Change, Growth and California Wildfire Risk, invited seminar.

California Energy Commission, California Climate Change Conference, 20 September 2009, Sacramento, CA, Potential Effects of Climate Change on Residential Wildfire Risk in California, invited presentation.

California Energy Commission, California Climate Change Conference, 10 September 2009, Sacramento, CA, Changes in Fire Extent and Frequency Under Climate Change and Increased Urbanization, invited presentation.

California Energy Commission, California Climate Action Team Public Meeting on California Climate Science, 20 April 2009, Scripps Institution of Oceanography, La Jolla, CA, Climate Change Impacts on Forestry and Wildfire, invited presentation.

Tahoe Science Consortium, 2009 Climate Change Symposium, 17 March 2009, Tahoe, CA, Climate Change Impacts on Wildfire, invited presentation.

Stanford University Bill Lane Center for the American West and Woods Institute for the Environment, How the West was Spun Colloquium, Wildfires in the West Forum, 15 January 2009, Stanford, CA, Projecting Climate Change Impacts on Wildfire, invited presentation.

American Geophysical Union, 2008 Fall Meeting, 16 December 2008, San Francisco, CA, Projecting Climate Change Impacts on Wildfire Probabilities, invited presentation.

International Association of Wildland Fire, The '88 Fires: Yellowstone and Beyond, 24 September 2008, Jackson Hole, WY, Climate Change and Forest Wildfire in the Western U.S., invited plenary presentation.

California Energy Commission, CalEPA and California Resources Agency, Fifth Annual California Climate Change Conference, 10 September 2008, Sacramento, CA, [Mapping Vulnerability to Wildfire: Property Losses and Suppression Costs](#), invited presentation.

USDA Forest Service Pacific Southwest Research Station, Sierra Nevada Science Symposium, 4 September 2008, Visalia, CA, Climate Change and Forest Wildfire in California, invited presentation.

California Energy Commission Public Interest Energy Research Climate Change Research Program and California Department of Fish and Game, Seminar on Climate Change and Ecological Resources in California, 6 June 2008, Sacramento, CA, Climate Change and Wildfire in California, invited presentation.

National Interagency Coordination Center 2008 Seasonal Assessment, 21 April 2008, Boulder, CO, Experimental Seasonal Wildfire Forecast for California, invited, with H. Preisler.

Association for Fire Ecology, Annual Awards Banquet Dinner, 30 January 2008, Tucson, AZ, Climate Change Impacts on Western Wildfire Regimes, invited keynote presentation.

American Geophysical Union, Fall Meeting 10-14 December 2007, San Francisco, CA, Reevaluation of the spring onset/fire association in the western U.S. using Phenological vs. Hydrological Models, with Julio Betancourt and Mark Schwartz, contributed presentation.

Air Resources Board site visit, 28 November 2007, UC Merced, CA, Fire & Climate Research Applications for California and the West, presentation.

Spanish Royal Academy of Sciences, Fundacion Ramon Areces, Incendios forestales: ¿lucha o adaptacion? 3 October 2007, Madrid, Spain, Climate Change Impacts on Fire Regimes, invited presentation.

Frontiers of Science and Engineering Seminar Series, Challenger Learning Center, Castle Science and Technology Center and Castle Air Museum, 15 September 2007, Atwater, California. Climate Change and Wildfire in the West, invited presentation.

Pacific Climate Workshop, May 2007, Asilomar, CA, Climate Change and Wildfire, contributed presentation.

NOAA Regional Integrated Science and Assessment PI Meeting, 27 February - 1 March 2007, Del Mar, California. Invited participant and panelist (Panel: Evaluating the benefits that RISAs bring to a region/set of stakeholders).

American Association for the Advancement of Science Annual Meeting, Science and Technology for Sustainable Well-Being, 15-19 February 2007, San Francisco, CA, Controversies in Forest Fire Suppression and Management, "Effects of Climate on Fire," contributed presentation with Haiganoush Preisler. Co-presenter.

Rocky Mountain Research Station and National Interagency Fire Center Meeting: "Suppression Cost Forecasting: Improving the Methodology," 2 February 2007, Pacific Southwest Research Station, Albany, CA. Invited to help organize development of improved fire suppression forecasts for Federal fire management. Invited presentation.

Xunta de Galicia e Escola Galega de Administracion Publica, Xornadas Prevendo os Desastres Ambientais: Unha Reflexión Crítica, 18 January 2007, Santiago de Compostela, Galicia, Spain. "A influencia da variabilidade e o cambio climáticos sobre os incendios no oeste dos EUA," invited presentation. Honorarium. <http://egap.xunta.es/detalleRecurso.php?id=254>

Association for Fire Ecology, 3rd International Fire Ecology and Management Congress, 13-17 November 2006, San Diego, CA, Session: Advances in Fire Climatology: Using Modern and Paleofire Data to Understand Long-Term and Broad-Scale Fire Regime Changes in Western North America, "Applied Dendrochronology for Fire Management in the Western United States." contributed presentation.

Association for Fire Ecology, 3rd International Fire Ecology and Management Congress, 13-17 November 2006, San Diego, CA, Plenary Session, "Climate, Forest and Fire Regime Changes in the Western US." Thomas Swetnam presenting. Invited presentation co-author.

Climate Impacts Group, University of Washington, CIG Seminar Series, 9 November 2006, Seattle, WA, "Climate and Forest Wildfire in the Western US," invited seminar. <http://www.cses.washington.edu/cig/outreach/seminarfiles/2006seminars/calendar-fall06.shtml>

Modesto Junior College, Kick-back Science Seminar, 12 October 2006, Modesto, CA, "Climate Change and Forest Wildfire in the Western US," invited presentation.

Consortium for Integrated Climate Research on Western Mountains, MTNCLIM Workshop, 22 September 2006, Mt. Hood, OR, "Explaining Spatial Variability in Forest Wildfire Regime Response to Warming Temperatures and an Earlier Spring Snowmelt." Contributed presentation with M. Dettinger, H. Hidalgo, T. Swetnam. <http://www.fs.fed.us/psw/mtnclim/talks/list.shtml>

California Energy Commission, 2nd Climate Change Science Workshop, 15 September 2006, Sacramento, CA, "Climate and Forest Wildfire in the Western United States: recent trends and projections," invited presentation. http://www.climatechange.ca.gov/events/2006_conference/presentations/index.html

7th International Conference on Dendrochronology, 15 June 2006, Beijing, China, "Applied Dendrochronology for Fire Management in the Western United States." Invited presentation in Session 10: Applications of Dendrochronology to Resource Management. http://7thicd.ibcas.ac.cn/Final_Program.htm

National Interagency Coordinating Center, National Seasonal Assessment Workshop – Western States and Alaska, 4 April 2006, Boulder, CO, "Statistical Wildfire Forecasts for 2006: transition and uncertainty," invited presentation with H. Preisler.

NOAA Climate Prediction Applications Science Workshop: Research and Applications on Use and Impacts, 21 March 2006, Tucson, AZ, "Evolving Partnerships for Integrating Climate and Forecast Information into Fire Management Planning," presentation. <http://www.nws.noaa.gov/ost/climate/STIP/CPASW06/>

University of California, Merced Job Candidate Seminar, 8 March 2006, Merced, CA, "Trends in Large Wildfires in Western U.S. Forests Since 1970: effects of changes in the timing of Spring," invited presentation.

University of Arizona GRD/Udall Job Candidate Seminar, 17 January 2006, Tucson, AZ, "Trends in Large Wildfires in Western U.S. Forests Since 1970: effects of changes in the timing of Spring," invited presentation.

California Climate Action Team Workshop, Scenario Analysis Subgroup Meeting, 13 December 2005, Sacramento, CA, "Potential Impacts on Wildfire Risk," invited presentation. http://www.climatechange.ca.gov/climate_action_team/meetings/2005-12-13_meeting/index.html

Climate Change Science Program Workshop, Climate Science in Support of Decision Making, 14 November 2005, Arlington, VA "Climate Forecasts for Improving Management of Energy and Hydropower Resources in the Western U.S.," contributed presentation with T. Barnett, D. Pierce, E. Alfaro, A. Gershunov, D. Lettenmaier, A. Hamlet, N. Voisin, A. Steinemann, Ross Gutromson, Ning Lu. <http://www.climatescience.gov/workshop2005/presentations/default.htm>

Fire History and Climate Synthesis in Western North America, 30 April 2005, Flagstaff, AZ, "Linking Modern and Paleo Fire and Climate Data," plenary discussion leader with Thomas Swetnam.

Fire History and Climate Synthesis in Western North America, 30 April 2005, Flagstaff, AZ, "Western North America Fire Occurrence Data," invited presentation.

Fire History and Climate Synthesis in Western North America, 30 April 2005, Flagstaff, AZ, "Climate and Wildfire in Western North America," invited presentation with Thomas Swetnam and Daniel Cayan.

NOAA Office of Global Programs, RISA Speaker's Series, 15 April 2005, Silver Springs, MD, "California's Vulnerability to Climate Variability and Change and CAP's Efforts to Assist Decision Makers on Water Resources, Wildfire and Human Health Issues," invited presentation with Daniel Cayan.

National Interagency Coordination Center National Seasonal Assessment Workshop: Western States and Alaska 2005, 29 March 2005, Boulder, CO, "Preliminary 2005 Forecast and Forecast Assessment," invited presentation.

Consortium for Integrated Climate Research in Western Mountains, MNTCLIM 2005: Anticipating Challenges to Western Mountain Ecosystems and Resources, 1-4 March 2005, Pray, MT, "Trends in Climate Since 1970 and the Response in High Elevation Forest Wildfire Regimes in the Western United States," contributed poster presentation with Daniel Cayan and Hugo Hidalgo.

American Meteorological Society 2005 Annual Meeting, 11 January 2005, San Diego, CA, "Coastal Southern California Wildfire, Antecedent Climate, and Santa Ana Winds," contributed presentation with Cayan, Brown, Hall, and Riddle. http://ams.confex.com/ams/Annual2005/techprogram/session_17945.htm

American Geophysical Union 2004 Fall Meeting, 16 December 2004, San Francisco, CA, "Climate and Wildfire in the Mountains of the Western United States," contributed presentation with Eric Alfaro, Daniel Cayan, Michael Dettinger, and Hugo Hidalgo in session U51A: Challenges to Mountain Water Resources and Ecosystems I

American Geophysical Union 2004 Fall Meeting, 16 December 2004, San Francisco, CA, "A Long-Term Perspective on Decadal Variability in Climate and Wildfire in the Western United States," contributed presentation with Thomas Swetnam in Session B43E: Fire, Climate, and Ecosystems II

UCSD Department of Economics, UCSD Environmental Resource Group Weekly Luncheon Seminar, 18 October 2004, La Jolla, CA, presentation "Seasonal Forecasts of Wildland Fire Area Burned and Suppression Costs for Fire Management Applications."

Western Coalition of Arid States WESTCAS Summer Legislative Conference, 24 June 2004, San Diego, CA, invited presentation "Drought and Wildfire in the Western U.S."

CIRCMONT Mountain Climate Sciences Symposium, 25 - 27 May 2004, North Lake Tahoe, CA, participant and discussion recorder, Session 3: Drivers of Change.

Risk Prediction Initiative Workshop: Fires at the Wildland-Urban Interface: What does the future hold? 19 May 2004, Bermuda Underwater Exploration Institute, Hamilton, Bermuda, invited presentation: "Antecedent Climate and Seasonal Wildfire Forecasting"

University of California Extension, Joint Meeting of the Oak Woodland, Forestry, Fire and Monitoring Workgroups, 5 - 6 May 2004, San Diego, CA, invited presentation: "Climate and Wildfire in California"

Universidad de Alcala de Henares, 27 April 2004, Alcala, Spain, invited seminar: "Towards a Long-Term Perspective on Wildfire in the Western United States"

II International Symposium on Fire Economics, Planning & Policy: A Global Vision, 20 - 22 April 2004, Cordoba, Spain, contributed presentation: "A Long-Term Perspective on Wildfire Season Severity in the Western United States", with Thomas Swetnam and Krista Gebert.

National Interagency Coordinating Center National Seasonal Assessment Workshop - Western States and Alaska, 30 March 2004, Phoenix, AZ, invited presentation: "2004 Wildfire Season: Statistical Forecasts of Area Burned"

21st Annual Pacific Climate Workshop: Coastal Climates and Issues, 28-29 March 2004, Asilomar, CA, contributed paper presentation "Coastal Southern California Wildfire, Antecedent Climate, and Santa Ana Winds" with Daniel Cayan, Tim Brown, Beth Hall, and Larry Riddle.

Scripps Environmental Advocates Monthly Meeting, 17 March 2004, Scripps Institution of Oceanography, La Jolla, CA, invited seminar: "Western Wildfire: Dimensions of the Problem."

American Meteorological Society 5th Symposium on Fire and Forest Meteorology & Society of American Foresters 2nd International Fire Ecology and Fire Management Congress joint session: Assessing and Predicting Climate Impacts on Landscapes. 16 - 20 November 2003, Orlando

Florida, contributed presentation "Long lead statistical forecasts of wildland fire suppression costs" with K. Gebert, G. Jones, K. Abt, J. Prestemon and A. Gershunov.

Twelve Thirty Club Luncheon Presentation, 22 October 2003, La Jolla Country Club, invited presentation "Climate and Wildfire Management in the Western United States"

Bren School of Environmental Science and Management, 7th Occasional Conference on Environmental Economics, 17-18 October 2003, University of California, Santa Barbara, contributed presentation "Statistical Forecasts of Wildfire Area Burned and Suppression Costs."

Scripps Institution of Oceanography, UCSD Climate Science and Policy Seminar, 20 May 2003, La Jolla, CA, invited seminar "Applied Climatology and Forecasting for Wildland Fire and Fuels Management"

California Firescope meeting, 16 April 2003, Sacramento, CA, conducted focus group on fire management decision calendars and the use of climate information.

20th Annual **Pacific Climate Workshop**, 6-9 April 2003, Asilomar, CA, contributed presentation "Statistical Reconstructions of Western U.S. Paleo Fire Regimes" with Thomas Swetnam

Joint Fire Science Program/National Fire Plan Wildland Fire Workshop, University of Arizona, Tucson, AZ, March 25-27, 2003, invited participant.

NOAA OGP Regional Integrated Science and Assessment Annual Program Meeting, Scottsdale, AZ, March 11-13, 2003, invited participant.

National Seasonal Assessment Workshop, sponsored by the **National Interagency Coordinating Center** - Predictive Services Group and the Climate Assessment for the Southwest, Mesa, AZ, February 25-28, 2003 invited presentation, "Scripps Statistical Fire Forecasts"

The **Seminar in Environmental and Resource Economics and Policy**, Department of Agricultural and Resource Economics, **University of California, Berkeley**, CA, February 5, 2003, invited presentation, "Statistical Modeling for Wildfire Management"

Climate Prediction Assessments Workshop: Research and Applications on Use and Impacts, Alexandria, VA, October 28-30, 2002, contributed presentation "A New Wildfire Climatology and Seasonal Forecasts for the Western U.S.: Developing and Implementing Tools for Fire and Resource Managers"

Sierra Nevada Science Symposium: Science for Management and Conservation, October 7-10, 2002, Lake Tahoe, California, contributed poster "Climate and Wildfire in California and the western United States"

International Workshop on Regional Integrated Assessment of Climate Impacts, Il Ciocco, Castelvecchio Pascoli, Italy, 16-19 September 2002, presentation "A new wildfire climatology and seasonal forecasts for the western U.S.: Tools for fire and resource managers."

Southeast Fire and Climate Workshop, **University of S. Florida Oceanographic Institute**, June 25-17, St. Petersburg, FL, invited presentation "Economic importance of utilizing climate information for fire management."

American Meteorological Society, San Diego Chapter Meeting, 24 April 2002, La Jolla, CA, invited public seminar "Fire and Climate in the Western United States."

Fire and Climate History in Western North and South America Workshop, **Laboratory for Tree Ring Research**, 23-28 March 2002, Tucson, AZ, invited presentation "Integrating Modern and Reconstructed Fire Histories for the Western United States for a Wildfire Climatology."

Working meeting, **U.S. Forest Service Southern Research Station**, Economics Research Unit, 13-15 March 2002, Research Triangle Park, NC, invited presentation "A Seasonal Wildfire Area Burned Forecast for the Western U.S.;" collaboration "A research agenda: the value of wildfire season severity forecasts for fuels management."

Association of American Geographers annual meeting, Society, Fire, Climate and Ecosystems in North America session, 20 March 2002, contributed presentation "Modeling Sierra Nevada Wildfire Season Severity and Suppression Costs under a Climate Change Scenario."

Fire in the West: A Climate/Fuels Assessment, Outlook, and Research Symposium hosted by the Institute for the Study of Planet Earth, the Climate Assessment for the Southwest (CLIMAS), the Laboratory for Tree Ring Research, the Program for Climate Ecosystem and Fire Applications (CEFA) and the National Weather Service Tucson Weather Forecast Office, 5-6 March 2002, Tucson, AZ, invited presentation "A Seasonal Wildfire Area Burned Forecast for the Western U.S."

Predictive Sciences Research Meeting, **National Interagency Fire Center**, 23 January 2002, Boise, ID, invited presentation "Statistical Forecasts of Western Wildfire Season Severity"

American Geophysical Union 2001 Fall Meeting, 10-14 December 2001, San Francisco, CA, contributed poster presentation "Modeling Sierra Nevada Wildfire Season Severity And Suppression Costs Under A Climate Change Scenario"

American Meteorological Society Fourth Symposium on Fire and Forest Meteorology, 13-15 November 2001, Reno, NV, contributed presentation "Statistical Forecasts of Western Wildfire Season Severity"

18th Annual **Pacific Climate Workshop**, 24-27 March 2001, Asilomar, CA, contributed presentation "Statistical Forecasts of Wildfire Season Severity using Canonical Correlation Analysis"

18th Annual **Pacific Climate Workshop**, 24-27 March 2001, Asilomar, CA, poster presentation "Climate Variability and Large Storm Surge on the Pacific Coast of the United States"

18th Annual Pacific Climate Workshop, 24-27 March 2001, Asilomar, CA, poster presentation "A Western United States Fire Climatology"

Climate Assessment for the Southwest 2001 Fire and Climate Workshops 14-16 February 2001, Tucson, AZ, contributed presentation, "Climatology of Western Wildfire and Experimental Long-Range Forecasts of Wildfire Season Severity"

81st **American Meteorological Society** Annual Meeting 14-19 January 2001, Albuquerque, NM, poster presentation "Climate Variability and Large Storm Surge on the Pacific Coast of the United States"

81st **American Meteorological Society** Annual Meeting 14-19 January 2001, Albuquerque, NM, poster presentation "A Western United States Fire Climatology"

American Geophysical Union 2000 Fall Meeting, 15-19 December 2000, San Francisco, CA, poster presentation "A Western United States Fire Climatology"

16th Annual **Pacific Climate Workshop**, 24-27 May 1999, Two Harbors, CA, contributed presentation "El Niño and One Hundred Years of Storm Surges in the Northeast Pacific"

LIBERTY UTILITIES (CALPECO ELECTRIC) LLC
QUALIFICATIONS AND PREPARED TESTIMONY
OF SHARON YANG

Q. Please state your name and business address for the record.

A. My name is Sharon Yang and my business address is 9750 Washburn Road, Downey, CA 90241.

Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC (“Liberty”).

A. I am employed by Liberty Utilities Services Corp. as Senior Director, Legal Services, West Region.

Q. Briefly describe your educational and professional background.

A. Prior to my current role, I was Director of Legal Services for California from February 2018 through November 2022. I have nearly a decade of experience working as an in-house attorney at Southern California Edison and SoCalGas. I also have experience as a litigator at several law firms. I have a Bachelor of Arts Degree in English and American Language and Literature from Harvard University and a Doctor of Jurisprudence from Georgetown University Law Center.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this proceeding is to sponsor *Liberty’s Mountain View Fire Cost Recovery Application, Exhibit Liberty-05: Litigation and Claims Resolution*.

Q. Was this material prepared by you or under your supervision?

A. Yes, it was.

Q. Insofar as this material is factual in nature, do you believe it to be correct?

A. Yes, I do.

Q. Insofar as this material is in the nature of opinion or judgement, does it represent your best judgment?

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.