



FORESTRY CHALLENGE



2019 Annual Report

Presented by

Forestry Educators Incorporated

a Non-Profit 501(c)3 Corporation

What is the Forestry Challenge?

The Forestry Challenge is an academic competition for high school students in technical forestry and current forestry topics. The four-day events are held in five locations throughout California.

Goal #1: Teach students the basic principles of forestry, connecting classroom math and science to hands-on experiences with real-world applications, enabling them to make recommendations about natural resource management.



Goal #2: Give students the opportunity to explore careers by interacting with natural resource professionals including foresters, hydrologists, soil scientists, wildlife biologists, and fire scientists.



Goal #3: Provide an opportunity for a diverse student population to experience outdoor recreation and develop an appreciation for the forest and its benefits to us all.



Forestry Educators Incorporated is the non-profit corporation that administers the Forestry Challenge. Meeting twice annually, the Board consists of a President, Secretary, and Treasurer. President Tim Cary is an attorney specializing in representing school districts, Secretary Jill Engelmann is a human resources specialist, and Treasurer Rich Wade is a Registered Professional Forester and a member of the CA Board of Forestry.

Message from the Executive Director

First, we had drought, then wildfires, and now we are entering the phase of consequences. Through the entire progression, there have been teachable moments on the



Snapshot of UN contest video

importance of forest management, and the Forestry Challenge continues to strive and succeed at engaging students in data collection, interpretation, and recommendations to address the ongoing crisis in our state's forests. Public Safety Power Shutoffs are the new normal and, not only did they impact two of our 2019 fall events, they remind us how a lack of forest management creates far-reaching burdens on society.

As we fine-tune the events, our ongoing goal is to fill each event to capacity with 32 teams. We are close to doing that at the El Dorado and San Bernardino events and have room to grow, particularly at Santa Cruz and to some degree at Shasta. Redwood Glen, our new Santa Cruz venue, will be ours exclusively in 2020 and we are thankful for the great relationship we have with the staff at the facility.

One strategy for building out the program is to extend awareness through untraditional channels and beyond the state line. In this report, you will see examples of our creative approach, including new uses of social and traditional media. The photo above is a still shot of a new one-minute video we created as an entry in a United Nations Forestry Educator's Contest. We received a runner up award and hope this video becomes another vehicle to spread awareness of the Challenge.

By thinking outside the box, our goal is to continue expanding and improving the Forestry Challenge, making it the state's premier forestry education program.

Diane

Diane Dealey Neill
Executive Director
Forestry Educators Incorporated

2019 BUDGET

Funding Source

USFS Forest Stewardship Grant	\$ 50,000.00
CalFire - CCI Grant	\$ 79,225.00
Sponsor Contributions	\$ 68,211.78
Registration Income	\$ 40,987.42

Total Funding	\$ 238,424.20
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Expenses

Contractual

Total Facility Fees	\$ 82,076.74
Insurance	\$ 2,963.77
Bussing / Event Transportation	\$ 1,445.00
Legal / Professional	\$ 991.75
Web Page	\$ 980.43

Personnel

Executive Director	\$ 44,000.00
Office Assistant	\$ 29,864.25
Additional Staff	\$ 16,285.51
Emergency Care Coordinator	\$ 0.00

Employee Benefits

Taxes	\$ 9,119.52
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Supplies

T-Shirts	\$ 6,148.21
Food	\$ 6,020.02
Office Supplies	\$ 5,377.15
Printing	\$ 2,000.69
Postage	\$ 1,045.73
Awards	\$ 525.94

Travel

Employee Mileage	\$ 1,569.12
Volunteer Mileage	\$ 1,603.79
Hotels	\$ 944.58
Airfare	\$ 1,459.78
Rental Vehicles	\$ 7,338.39
Conference Registrations	\$ 1,129.00

Other

Substitutes and Transportation	\$ 15,342.11
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Total Expenses	\$ 238,231.48
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Special Awards

The George Little Memorial Award for Volunteer Excellence was established in 2011. George was born on May 10, 1939 and passed on June 19, 2011. He was a dedicated volunteer at the Forestry Challenge, assisting with field training and testing, even developing training materials.

Dan Cullinane first became involved as a teacher at Oxford Academy. Now retired, Dan has become the official Forestry Challenge event photographer, providing the professional quality photos featured in this report. In 2019, Dan volunteered alongside staff at all four events and became an integral part of our team.



The Tom Eustis Memorial Award for Teaching Excellence was established in 2006 to honor Thomas McLoughlin Eustis. Tom was both a forester and educator, earning multiple degrees in forestry. He was also a dedicated supporter of the Forestry Challenge and participated as a team advisor with McClatchy High School from Sacramento in 2003 and 2005.

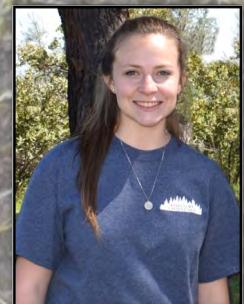
This year, a longtime dedicated Forestry Challenge advisor, Ann Akey from Woodside High School, was given the Award for Teaching Excellence. Ann has participated in the Forestry Challenge with many students and teams since 2009. Ann is a lead teacher at the school's "Green Academy", a small-school academy within Woodside High School that prepares the next generation of leaders for careers in green technology and environmental sustainability.



Scholarship



A DIVISION OF PACIFIC STATES INDUSTRIES, INC. This year's scholarship recipient, Emily Staller, is a freshman at Northern Arizona University, pursuing a Forestry degree. During high school, Emily worked as an office intern for FEI. Her experience with Forestry Challenge greatly influenced her decision to pursue a degree in Forestry.



For the past several years, Redwood Empire, a division of Pacific State Industries and the Burch Family, has awarded scholarships to assist students who plan to earn a college degree in Forestry and participated in one or more Forestry Challenge events.

CHAMPIONSHIP

Camp Sylvester, April 25-27

13 schools with 62 students and teachers

CAMS Charter Oak Del Oro Folsom Foresthill Golden Sierra Granada Hills
Hawthorne J.W. North Ponderosa Sac New Tech Trinity Vista del Lago



The second-ever Forestry Challenge Championship doubled in size, with great weather and a beautiful forest for the field activities. Teams traveled from as far as Trinity and Orange counties to attend. Kinland Forest, owned by the Kinsinger family, was the site for the focus topic, an assessment of the 428-acre tract that has had a Nonindustrial Timber Management Plan for 20 years. The original plan prescribed group selection on an 80-year rotation, but a bad economy, the Rim Fire, and the tree mortality epidemic resulted in poor market conditions that derailed the plan. Students collected current stand data, compared it to the 20-year projection from the original plan, and recommended either how to get back on track with group selection or start fresh with a new silvicultural prescription. Prior to the start of the event, several school groups toured the Sierra Pacific Industries mill in Sonora.



Students
collected data in
beautiful
Kinland Forest

The Second Forestry Challenge State Champions



Sacramento New Tech High School

The winning team and their advisors



Landowner Bill Kinsinger was very involved throughout the event, spending time with students in the field and judging presentations on Saturday morning

SHASTA

Mountain Meadows Camp, September 25 - 28

13 schools with 89 students and 18 teachers

Anderson New Tech Etna Fort Bragg Golden Eagle Charter

Mt. Shasta Nevada Union Northern Summit Academy Porterville

Shasta Charter Academy Trinity Weed Westwood Yreka



The first event of the season was classic forestry with a modern twist. The focus topic site was a 120-acre parcel owned by Shasta Forests Timberlands and managed by W.M. Beaty & Associates. Using a computer program called Visual Forester Professional and data collected from plots set up in the parcel, students were able to visually model various management options and recommend the most economical and logical prescription.



First Place



Nevada Union High School



Pacing Contest Winners
Fort Bragg High School



Four year participants
Jane Dalrymple, Jimistar Chandler, Gavin Currier
Northern Summit Academy



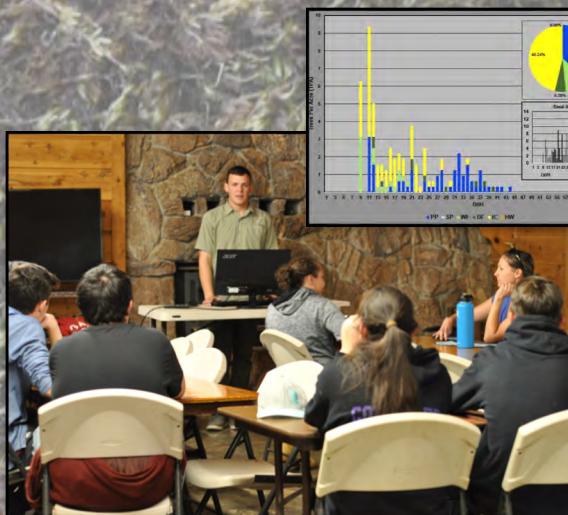
Students had the opportunity to see a logging operation during the event



Logger Zane Peterson answers student questions regarding harvest operations



Consulting forester Jim Chapin helps Westwood student Jasmine Williams use an angle gauge



Students were introduced to *Visual Forester*, a forest management simulator from Alpine Land Information Services. Johnathan Tenny from Alpine-LIS demonstrated the program using data collected by students during the event.



Shannon Harwood, an undergraduate recruiter from Oregon State University, volunteered at the event, bringing raffle prizes for student activities and information about the OSU

College of Forestry

Yreka High School was unable to give their presentation at the event. Foresters Dean Lofthus, John Kessler, and Cole Humphrey judged presentations on campus, allowing YHS to finish the competition.



SANTA CRUZ

Redwood Glen, October 9 - 12

12 schools with 85 students and 17 teachers

*Amador Coalinga Del Oro Golden Valley Granada Hills Charter Minarets
Monache Napa New Tech Ridgeview Ross San Lorenzo Valley Woodside*

Towering redwoods attracted schools from the Central Valley and Southern California, as well as a few local schools, for the 2019 Santa Cruz Forestry Challenge. The new event site provided a timely opportunity to collect data on a 20-acre forested unit in the northeast portion of Redwood Glen's property to establish baseline statistics on the stand and assess its growth potential. Students weighed in on whether it would make sense to manage the property under a Nonindustrial Timber Management Plan (NTMP).



The Santa Cruz event occurred during a 42-hour PG&E Public Safety Power Shutoff. Students self-organized to keep their computers charged using one power strip during presentation work time.



Coalinga High School participant Michael Diaz filmed and edited a video during the event that showcased his school's participation. The video included interviews with fellow students and his teacher and is posted on the Coalinga High School YouTube channel.





CalFire forester Andy Hubbs helps students collect tree height data using clinometers



Students collected core samples using increment borers to assess tree health and recent growth patterns



Minarets HS student Autumn Pecarovich practices using a Biltmore stick

Woodside HS student Enrique Suarez said: "My experience at the Forestry Challenge was marvelous, even without power. I saw the power situation as a chance to be disconnected from my phone and it worked! Thank you for showing me that it won't kill me to not have a phone for a day or two."



EL DORADO

Leoni Meadows Camp, October 23 - 26

19 schools with 112 students and 27 teachers

Amador Calaveras Charter University Prep El Dorado

Eleanor Roosevelt Learning Center Folsom Foresthill Fusion Charter Golden Sierra

Grant Independence Mira Loma Mountain Oaks Charter Placer Ponderosa

Rosemont Sac New Tech Summerville Vista del Lago



Forest health and community protection from wildfire went hand-in-hand at the El Dorado Forestry Challenge. Students collaborated with the US Forest Service to collect data on an area in the Trestle Forest Health Project that has been commercially logged and masticated. By collecting information about the post-treatment conditions and running it through BehavePlus, a computer program that simulates fire behavior, students were able to determine that the treatment meets fire-safe goals for the Project.



USFS Fuels Officer Robert Scott

A participating student said: "My favorite part was understanding and looking at fire behavior modeling using the BehavePlus program"



SPI forester Chris Dow

First Place - Foresthill High School



Students used FEI-made densitometers
to take canopy readings



The good weather allowed some
schools to camp at Leoni rather than
stay in the dorms



Many foresters volunteered to
share their knowledge with
students



For some people, dbh
is hard hat height!



Pacing Contest Winners
Independence High School

SAN BERNARDINO

Green Valley Lake Camp, November 6 - 9

16 schools with 117 students and 27 teachers

Anaheim CAMS Charter Oak Citrus Hill Coachella Valley Cypress J.W. North
Littlerock Lynwood Marco Antonio Firebaugh Orange Vista Oxford Academy
Riverside STEM Academy San Jacinto Valley Academy Sonora Vista



The final event of the 2019 Forestry Challenge season involved an ambitious field exercise, collecting data on a 120-acre parcel known as the Sawmill Tract near Twin Peaks. The state-owned tract is in the middle of an ongoing fuels reduction project and its title is in the process of being transferred from the California Department of Fish and Wildlife to CalFire to become the state's newest Demonstration State Forest. Teams evaluated the property to determine if the forest is in a firesafe condition and suggested goals and uses for the tract once it becomes a Demonstration State Forest.





CalFire and LA County Fire employees provide critical knowledge in a part of the state without industrial foresters

Duy Mai, an international exchange student attending Oxford Academy, said “The challenge has been an incredible experience for me and has become one of the highlights of my stay here in the United States. Thank you for creating such an amazing environment for students to learn and compete.”



**Four year participant
Arynne Harris
Littlerock High School**



Our first canine participant, Dalton, a seeing eye dog-in-training, attended with Citrus Hill High School. He found out forestry is hard work!



Many local community members came out to judge student presentations on Saturday morning



Expanding Our Reach Through Print Media

We spend many hours every year putting together and distributing press releases for each participating school. Here are a few examples of publications that ran stories about the 2019 Forestry Challenge. The varied types of publications reach vastly different audiences, raising awareness about the Forestry Challenge.

MERCHANT Magazine
JANUARY 2020
THE VOICE OF THE WEST'S LBM SUPPLY CHAIN — SINCE 1927
2020 VISION: THE YEAR AHEAD IN SIDING • ROOFING • DOORS • WINDOWS • HOUSEWRAP

PLACER UNION HIGH SCHOOL DISTRICT SPECIAL EDITION
DECEMBER 19, 2019 VOLUME 3, ISSUE 5

Placer High School - Forestry Challenge
Auburn Journal Article - December 13, 2019

Public

Facebook

Instagram

Flickr

Social Media

We continue to add to our social media presence. This year, in addition to the Forestry Challenge Facebook page and website, we started a Flickr photo account as well as an Instagram account. While both of these accounts are new, we hope to build content as time goes on.

San Jacinto Valley Academy



In 2019, 30-year educator Teresa Barnett passed away after a courageous battle with cancer. To honor her love of learning, in lieu of flowers, Teresa requested that donations be made to sponsor students in the San Jacinto Valley Academy Forestry Challenge Club, of which her grandson, Tanner, is the President, and she was the Legacy Founder. San Jacinto Valley Academy participated in the 2019 San Bernardino Forestry Challenge, thanks in large part to Teresa's last wishes.



International Junior Foresters Contest



Left to right: Ivy Goodwin, Zoe Storaasli, and Jennifer Smith (USFS International Programs Manager)

Ivy Goodwin and Zoe Storaasli, two Forestry Challenge students from the CA Academy of Math and Science (CAMS), entered the 2019 International Junior Forest Contest in Russia, representing the United States and taking third place with their research paper titled: "The Effectiveness of Various Brush Removal Methods in the Los Angeles Area." Ivy and Zoe credit the Forestry Challenge with giving them the confidence to enter the contest.



Ivy gathering data



Zoe gathering data



The 2019 competition was October 27—November 1 in Voronezh, Russia. Thirty-one young adults, representing 27 countries and ranging in age from 14 to 22, presented their projects in front of an international jury comprised of researchers and forestry experts from Russia, Europe, China, and the United Nations.



Zoe and Ivy sightseeing in Moscow

Thank you to our Sponsors

**2019 Totals: 403 Students and 88 Teachers from 60 Schools
152 Volunteers donated 2,104 hours for an in-kind value of \$109,742**

Amador-El Dorado Forest Forum	Pacific Forest Foundation
Amador Resource Conservation District	The Papé Group
American AgCredit	PG&E Corporation Foundation
Anderson Logging	Placer County Resource Conservation District
Bejac	Red River Forests, LLC
Big Creek Lumber Company	Redwood Empire Sawmill
Bordges Timber	Rich Wade
CalFire - CA Climate Investments Program	Robert Dalton
California Forestry Association	Robinson Enterprises
Collins Pine Company	Setzer Foundation
Crane Mills	Shasta Forests Timberlands
CTL Forest Management	Sierra Cascade Logging Conference
Emerson Logging	Sierra Forest Products
Fruit Growers Supply Company	Sierra Nevada Conservancy
Hancock Forest Management	Sierra Pacific Foundation
Inland Empire Resource Conservation District	Sierra Resource Management
Integrated Forest Management	Soper-Wheeler Company
Joe Thornton Logging	The Strong Foundation
J & R Logging	Tim Treichelt Giving Fund
March Conservation Fund	Timber Products Company
Mary A. Crocker Trust	Trinity River Lumber Company
Matt Waverly	USFS – Forest Stewardship Program
Mendocino and Humboldt Redwood Companies	Waratah Forestry Attachments
Metropolitan Water District of Southern CA	Woolery Timber Management

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Forestry Educators Incorporated

www.forestrychallenge.org



The Forestry Challenge is part of California Climate Investments, a statewide program that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment - particularly in disadvantaged communities.

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