

CCST

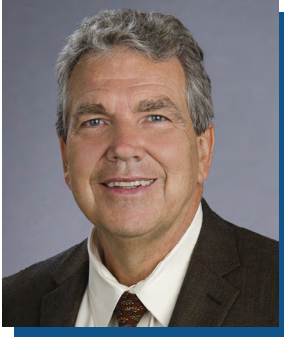
ANNUAL REPORT

Toward a Resilient California

2020

CALIFORNIA COUNCIL ON
SCIENCE & TECHNOLOGY

MESSAGE FROM THE CCST BOARD CHAIR



As I look back on a year marked by a global pandemic, powerful social justice movements, turbulent elections, megafires, and a continuing climate crisis, I'm struck by how much CCST adapted – and delivered – in this environment.

With the support of our institutional and philanthropic partners, we teamed with California's leading science and technology experts to deliver actionable advice to California policymakers. As one example, our study of the costs of wildfires, undertaken in partnership with the Gordon and Betty Moore Foundation, highlighted key gaps in how our society accounts for the costs and impacts of wildfires – for example, the significant and increasingly deadly impacts of wildfire smoke inhalation. The study's findings have the potential to help change the conversation about how the State and federal government can use their resources most effectively to protect Californians.

“ We know science and technology must be essential components of our recovery from the pandemic and our preparation for future complex disasters.

Wildfires are one component of California's increasingly complex disaster landscape. We launched a Disaster Resilience Initiative, “Toward a Resilient California,” to strengthen our support to the State's efforts to manage these risks. This will be a five-year public-private partnership that enhances the delivery of actionable science advice from our network of experts to State policymakers.

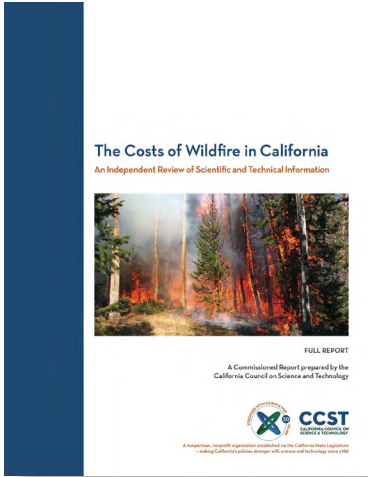
Last year's calls for racial justice after the killings of George Floyd and Breonna Taylor, and the disparate impacts of California's historic wildfires and the COVID-19 pandemic, brought the consequences of systemic racism into clearer focus. Our Board, and the staff and Fellows of CCST, are passionate about making progress and are working to institutionalize diversity, equity, and inclusion throughout CCST's work. These efforts have informed our new strategic plan. We have taken several initial actions, though we know there is much work yet to be done.

We know science and technology must be essential components of our recovery from the pandemic and our preparation for future complex disasters. CCST looks forward to working with our partners in 2021 and beyond to help build a more sustainable and resilient future for all Californians.

– PETER COWHEY, PhD
Dean, UC San Diego School of Global Policy and Strategy

DISASTER RESPONSE & RESILIENCE

TOWARD A RESILIENT CALIFORNIA



CCST's report assesses "The Costs of Wildfire in California," published October 2020.

“

Wildfire is a challenge that is not going away for California. . . . Our report provides an improved framework for the State and recommendations to move toward sound fire management policy for California.”

MICHAEL WARA, PHD, JD
CHAIR, STEERING COMMITTEE

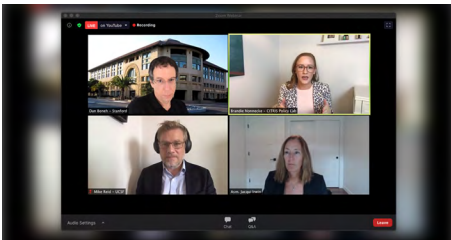
DIRECTOR, CLIMATE AND ENERGY POLICY PROGRAM
STANFORD WOODS INSTITUTE FOR THE ENVIRONMENT

THE COSTS OF WILDFIRE IN CALIFORNIA

Led by authors and a Steering Committee with multidisciplinary expertise, this CCST study suggests opportunities for policymakers to improve the effectiveness of wildfire management in California in several key ways: enabling regional approaches, increasing investments in mitigation and resilience strategies, and accounting for the cumulative public health impacts of exposure to multiple fire events—including the interacting effects of wildfire smoke and COVID-19. Part of CCST's ongoing efforts toward a resilient California.

A RESILIENT CALIFORNIA

Through expert briefings on COVID-19, wildfire, blue carbon, natural pathways for carbon sequestration, negative emissions, and orphan wells, we are looking at California's long-term future for meeting its resilience and climate goals.



COVID-19 EXPOSURE NOTIFICATION

A CCST Expert Briefing discussion moderated by:
Assemblymember Jacqui Irwin.

Dan Boneh, Stanford, Computer Science, Elect. Engineering
Brandie Nonnecke, Founding Director, CITRIS Policy Lab
Mike Reid, UC San Francisco, School of Medicine



NATURAL CARBON PATHWAYS

A CCST Expert Briefing discussion moderated by:
Rob Jackson, Stanford, Earth System Science.

Asmeret Berhe, UC Merced, Life & Enviro. Sciences
Patty Oikawa, CSU East Bay, Earth & Enviro. Sciences
Matthew Potts, UC Berkeley, Env. Sci. Policy & Mgmt.



CCST SCIENCE & TECHNOLOGY POLICY FELLOWS

PROVIDING SCIENTISTS WITH A YEAR OF GOVERNMENT SERVICE AND LEADERSHIP TRAINING FOR A SCIENCE POLICY CAREER.

The 2020 Fellows faced historic and challenging circumstances unlike any class before it—and they rose to the occasion. When the Capitol community shifted to remote work, the Fellows quickly adapted to operating in a virtual environment and continued to make vital contributions to the work of the State, including COVID-19 response and recovery efforts and served as influential voices on antiracism. In 2020, with support from the State of California and the Gordon and Betty Moore Foundation, we increased the number of Fellows from 10 to 15, and expanded our reach to place Fellows in the Executive Branch for the first time.

The 2020 class marked our 11th year of placing PhDs directly into legislative offices and committees. Altogether, CCST Science Fellows have worked on **over 1,000** bills, briefings, hearings, and bill analyses. There are now **113 alumni** of the program, many of whom serve in positions in legislative offices and agencies. With the arrival of the 2021 class in November, **128 CCST Science Fellows** have now been trained to work directly with decision makers as trusted staff.

2020 CCST S&T POLICY FELLOWS



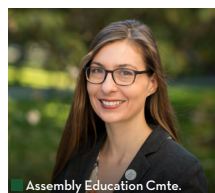
LA'SHAYE
Cobley

PhD: Biology, University of Utah
BA: Biology and Africana Studies,
Bowdoin College



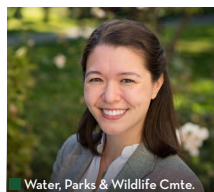
BRYNN
Cook

PhD: Ecology, Univ. of Virginia
BS: Enviro. Sciences, UC Berkeley



SIERRA
Cook

PhD: Applied Physics, Cornell Univ.
BA: Physics, UC Berkeley



MAY
Dobosiewicz

PhD: Neuroscience, The Rockefeller Univ.
BS: Pharmacology, McGill Univ.



GRAYSON
Doucette

PhD: Materials Science, Penn State
BS: Materials Science, Virginia Tech



RAE
Eaton

PhD: Chemistry, Univ. of Washington
BA: Chem. & Biochem., Oberlin College



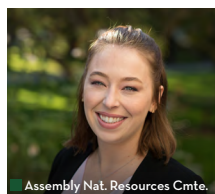
CRISTINA
Echeverria

PhD: Civil and Environmental
Engineering, UCLA
BS: Chem. & Biomol. Eng., UCLA



GEOFF
Hollett

PhD: Genetics, UC Davis
BASc: Nanotechnology Engineering,
Univ. of Waterloo, Canada



JACY
Hyde

PhD: Forest Resources &
Conservation, Univ. of Florida
BS: Biology, Cal Poly San Luis Obispo



KEN
McCullough

PhD: Neuroscience, Emory Univ.
BA: Molecular & Cellular Biology,
Lewis and Clark College



MARIA
Montchal

PhD: Biological Sciences, UC Irvine
BA: Psychology & French, Drew Univ.



RACHEL
Silvern

PhD: Earth & Planetary Sciences,
Harvard University
BA: Enviro. Sciences, Barnard College



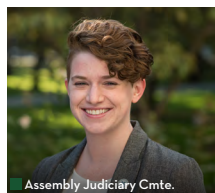
NIKKI
Soltis

PhD: Plant Biology, UC Davis
BS: Integrative Biology, UC Berkeley



MERON
Tesfaye

PhD: Chemical Engineering, UC Berkeley
BS: Chem. Eng., Univ. of Maryland



EMILY
Wonder

PhD: Materials, UC Santa Barbara
BA: Physics, Univ. of Chicago

CCST SCIENCE & TECHNOLOGY WEEK

**SCIENCE AT YOUR SERVICE:
ACHIEVING CALIFORNIA'S CARBON NEUTRALITY GOALS**



Board Chair **Peter Cowhey** and Executive Director **Amber Mace** present the CCST Science in Public Service Award to Strategic Growth Council Director **Louise Bedsworth** and **Senator Jerry Hill**.



Secretary of Natural Resources Agency **Wade Crowfoot** answers a question at the CCST Leadership Roundtable.



CCST Science Fellows Alumni **Erika Bustamante** ('12) and **Chanel Matney** ('19) reunite at the S&T Week Reception.



Then Assemblymember **Shirley Weber** with CCST Science Translator and UC San Diego PhD student **Meghana Pagadala**.



Senator Richard Roth presents a certificate to CCST Science Translator and UC Riverside grad student **William Ota**.



2020 Fellows **Ken McCullough**, **Cristina Echeverria** and partner **Fernando Antunez**, **Maria Montchal**, **La'Shaye Coble**, **Meron Tesfaye**, and **Grayson Doucette** celebrate S&T Week 2020.

BOARD OF DIRECTORS

MEMBERS

PETER COWHEY

Board Chair
UC SAN DIEGO

LISA A. ROSSBACHER

Vice Chair
HUMBOLDT STATE UNIVERSITY

ERIKA BUSTAMANTE*

STANFORD UNIVERSITY

ANDREW MCILROY

SANDIA NATIONAL LABORATORIES

AL CARNESALE**

UC LOS ANGELES

KATHRYN MOLER

STANFORD UNIVERSITY

BRUCE B. DARLING

NATIONAL ACADEMIES

GANESH RAMAN

CALIFORNIA STATE UNIVERSITY

RICHARD C. FLAGAN

CALTECH

SAMUEL TRAINA**

UC MERCED

CHARLES E. HARPER

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EUGENE TU

NASA AMES RESEARCH CENTER

AMBER MACE

Executive Director
CCST

SHENEUI WEBER

CALIFORNIA COMMUNITY COLLEGES

THERESA MALDONADO*

UC OFFICE OF THE PRESIDENT



GANESH RAMAN

Chair, Diversity, Equity,
and Inclusion Committee

"CCST is **STRONGLY COMMITTED** to making progress in diversity, equity, and inclusion – using our immense talent and passion to create a more just environment and impact for all."



LISA ROSSBACHER

Chair, Governance &
Nominations Cmte.



CHARLES HARPER

Chair, Finance
Committee

"This year presented a challenging landscape but CCST has an **AMBITIOUS** and forward-thinking **LONG-TERM FINANCIAL PLAN** – including a \$30 million endowment for the Fellows program."

* New in 2020 ** Term Ended in 2020 *Non-voting Member

REVENUES (2019)

Program Grants	\$8,940,336
Partner Institutions	\$632,725
Govt. Contracts	\$392,011
Donations	\$194,911
Investment Income	\$118,897
TOTAL Revenue	\$10,278,880

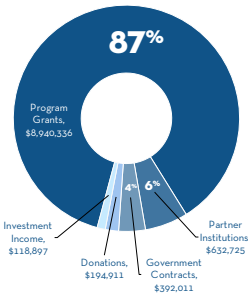
EXPENSES (2019)

Program Services & Projects	\$1,520,791
Outreach & Administration	\$1,076,310
Fundraising	\$154,180
TOTAL Expenses	\$2,751,281

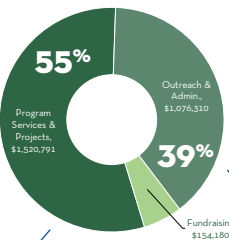
ENDOWMENT (2019)

Cash on Hand	\$ 7,000,000
Pledged	\$ 3,000,000
TOTAL	\$ 10,000,000

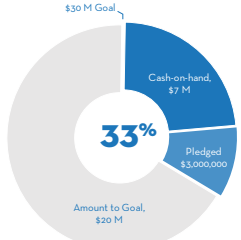
Goal: Building a \$30 M endowment to permanently fund the CCST Science Fellows.



Program Services & Projects
Briefings, access to experts,
and other science services.



Outreach & Administration
Outreach includes relationship
building with decision makers
and experts around the state.



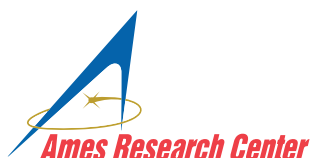
OUR PARTNERS



California
Community
Colleges

Caltech

Stanford



THANK YOU TO OUR

MAJOR PARTNERS OVER 30 YEARS:

The State of
California

Gordon and Betty
Moore Foundation

S.D. Bechtel, Jr.
Foundation

Heising-Simons
Foundation

TOSA Family
Foundation

William H. Hurt
Philanthropy

WHH Foundation

Chan Zuckerberg
Initiative

Bill Rutter

Doug Koshland

James & Rebecca
Morgan Charitable
Foundation

Kingfisher

William and
Flora Hewlett
Foundation

Buzz Woolley

Irwin and Joan
Jacobs

Pitch and Cathie
Johnson

Charles F. Kennel

Bruce Alberts

Ted Geballe/
Eucalyptus
Foundation

The Ralph
M. Parsons
Foundation

Stuart Foundation

Corey S.
Goodman

Burton and
Deedee McMurtry

Gordon Bell

Miriam E. John

Charles Harper

Robert Byer

David W. Martin

Joseph Walkush



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Cover: Photo, "The Day the Sun Didn't Rise," by [Christopher Michel](#) on 9/9/20 in San Francisco. Layout, Mikel Shybut.