



*Susan Hackwood
CCST Executive Director*



CCST
CALIFORNIA COUNCIL ON
SCIENCE & TECHNOLOGY

*Council Meeting
May 13, 2015*

Recent Actions

- ✧ CCST Governance and Operations
 - ✧ Strategic Planning Process
 - ✧ Committees
- ✧ CCST Projects
 - ✧ SB4 Volumes II and III peer review
- ✧ S&T Policy Fellows
 - ✧ 7th class interviews
 - ✧ Fundraising
 - ✧ Strategic plan
- ✧ CalTAC

STRATEGIC PLAN 2015-2020

- ✧ Strategic plan completed, implementation process beginning.
- ✧ Fellows Strategic Plan finalized.
- ✧ CalTAC's plan to be completed by July 2015.

*The strategic vision for the Council
is to improve effectiveness and
increase engagement.*

STRATEGIC COUNCIL PRIORITIES

- ✧ Organize its activities around issue-based themes, focused committees, and meetings that are engaging and well-attended
- ✧ Seek ways to increase interaction with CCST Senior Fellows, as well as with CCST S&T Policy Fellows
- ✧ Redefine the Laboratory Affiliates' role in CCST, and create a robust five-year plan that advances mutually beneficial priorities and partnerships

STRATEGIC COUNCIL PRIORITIES

- ✧ Continue to oversee CCST's work, ensuring rigor and objectivity, and ensuring metrics for success
- ✧ Continue to diversify membership to ensure access to all relevant S&T policy expertise and to engage the next generation of scientists
- ✧ Provide a robust network for Council members to interact with the best and brightest science minds in the State in fields other than their own
- ✧ Assist the Legislature and the Executive Branch of state government in identifying and formulating issues that could benefit from CCST research

Creating stronger connections

- ✧ March 6: CCST helped UCSB secure \$30M commitment from Governor's office in support of DOD proposal for Integrated Photonics Institute
- ✧ March 16: Peter Cowhey and Susan Hackwood presented to UC VCRs
- ✧ Exploring other initiatives, e.g. Cal-BRAIN
- ✧ April 21: Charlie Kennel and Susan Hackwood presented at CSU Council of Presidents
- ✧ May 5: Dona Crawford and Susan Hubbard hosted Laboratory Affiliates Meeting
- ✧ Plans underway to meet with leadership of Caltech and Stanford



EXECUTIVE COMMITTEE

John Hall, Joe Walkush, David Martin, Prasad Ram, Jeff Rudolph, Corey Goodman, Peter Cowhey, Charlie Kennel, Amber Mace, Julie Meier Wright, and Susan Hackwood.



NEW TECHNOLOGY AND INNOVATION

Peter Cowhey, Dona Crawford, Fariborz Maseeh, Julie Meier Wright, Terry Lewis and Susan Hubbard

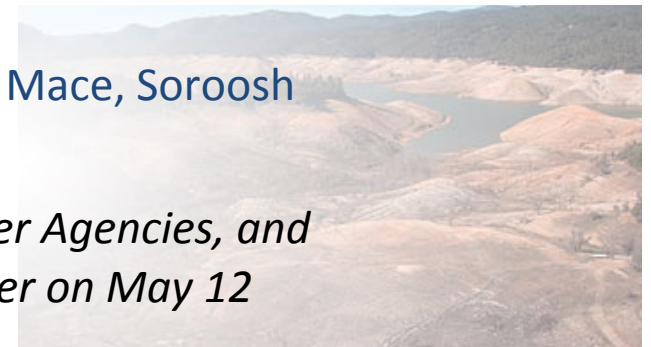
Current focus: cybersecurity and innovation initiative



WATER ISSUES

Ziyad Durón, John Hall (chair), Jude Laspa, Amber Mace, Soroosh Sorooshian, Julie Meier Wright and Jeff Dozier

Meeting with DWR, Association of California Water Agencies, and Senate Committee on Natural Resources and Water on May 12

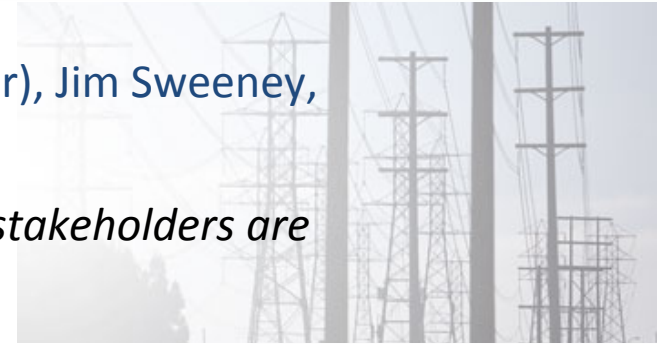




ENERGY ISSUES

Bryan Hannegan, Patrick Lee, Jane Long (vice-chair), Jim Sweeney, Joe Walkush (chair), and Dan Sperling

Committee has met several times, meetings with stakeholders are planned



LIFE SCIENCES

David Martin (chair) and Corey Goodman



EDUCATION

Jeff Armstrong, George Blumenthal, Prasad Ram (chair), Jeff Rudolph, Heidi Haugen (CalTAC), Andy Kotko (CalTAC), and Darrel James (CalTAC)

Exploring working with CCC on how learning methods are evolving in STEM education



2014-2015 FELLOWS



SCIENCE & TECHNOLOGY POLICY FELLOWS

SCIENCE & TECHNOLOGY INFORMING POLICY



Topics current Fellows are working on

- ✧ Long-term care
- ✧ Climate change adaptation
- ✧ SoCal focused transportation needs assessment
 - ✧ Electronic cigarettes
 - ✧ Municipal water districts
 - ✧ Automated license plate recognition systems
 - ✧ Vaccines
- ✧ Fair Information Practices

2015-16 Class of Fellows (Year 7)

- ✧ Application process closed Feb. 28
 - ✧ 87 qualified applicants
- ✧ Narrowed down to 32 by Selection Committee
- ✧ Interviews to be held on May 26, 27, 28 in Sacramento office





SCIENCE & TECHNOLOGY POLICY FELLOWS ALUMNI

- ✦ Doug Brown continues to coordinate grant to support development & operation of a formal S&T Policy Fellows Alumni Network
- ✦ Alumni Steering Committee meets quarterly to plan events and develop surveys of alumni needs
- ✦ Summary of advancing careers of Policy Fellows alumni:



SCIENCE & TECHNOLOGY POLICY FELLOWS ALUMNI

- 6 California State Agencies
- 7 California State Assembly
- 5 California State Senate
- 10 Academia (various roles)
- 5 Non-profit organizations
- 5 Private sector
- 2 Advocacy groups
- 1 Local public health director
- 1 National lab
- 1 AAAS fellow
- 1 White House PCAST, now at a research institute in Germany
- 1 Congressional Staff
- 1 Sailing around the world



All of CCST's work on STEM Education is under the leadership of the STEM Education Committee in partnership with CalTAC. Committee met on 9/26, 1/5, and 1/26.

1. Identify specific opportunities where CCST can contribute to the quality of education, particularly science and technology, in K-12, higher, and continuing education sectors. Identify projects and methods of approach.
2. Advise on the implementation of education curricula and common core standards.
3. Advise and contribute to the utilization of advanced technology in the delivery of academic instruction.
4. Advise and contribute to the utilization of advanced technology in the delivery of academic instruction together with the creative use of educational resources to provide the education and training needed to upgrade the skills and enhance the economic opportunities for Californians.



CalTAC

TEACHER ADVISORY COUNCIL





New Members 2015

1. [Kim Castagna](#), 6th grade math/science/computer teacher, Carpinteria Middle School
2. [Megan Cook](#), chemistry teacher, Cordova High School
3. [Dena Lordi](#), mathematics teacher/IB coordinator, Diamond Bard High School
4. [Zovig Minassian](#), biology teacher, Glendale High School
5. [Octavio Rodriguez](#), science teacher, Sequoia High School



- ✧ CalTAC has created an Ambassador (alumni) group of 25 actively engaged teachers
- ✧ Continue to leverage the competency and expertise of these teachers



Bi-annual meeting April 15th:

1. CalTAC membership
2. Conect CalTAC members/Ambassadors with CCST and the education/policy community through creation of CalTAC Distinguished Educator Fellows Program
3. Symposia
4. Research and summarize opportunities and best approaches to inform policy
5. CalTAC strategic plan



Partnerships/collaborations

- ✧ Common Sense Media/Graphite – Nine teachers served as reviewers and mentors
- ✧ California State University – Twelve teachers (current and associates) continue to explore potential opportunities to serve as CSU adjunct or clinical faculty
- ✧ California Community College System Teacher Preparation Pipeline
- ✧ GOORU – letter of intent for 100K in 10 initiative (due May 25)
- ✧ National Academies Teacher Advisory Council (NTAC) – Leadership team discussed convening researchers, teachers, technology platform providers, and policy makers to inform and support teachers' professional development





- ✧ CCST, through CaTAC and STEM Education Committee, provide a broader range of expert advice on STEM policy and practice
- ✧ CaTAC connecting with CCST Policy Fellows on STEM questions
- ✧ Other areas under consideration for CaTAC action:
 - ✧ **Strengthen** the preparation and retention of STEM teachers by working with executive staff of the California Commission on Teacher Credentialing to ensure that any individual who enters a classroom has a command of the curricular area he or she is assigned to teach.
 - ✧ **Connect** selected CaTAC members and alumni to the education and policy communities through the establishment of CaTAC Education Policy Fellows to serve as resources, guides and advocates for high-quality instruction.
 - ✧ **Inform** policies that strengthen teachers' skills and knowledge of STEM disciplines by working with partner organizations to coordinate regular briefings with state agencies, the Governor and the legislature.



Sustainability

- ✧ CaTAC received funding in February 2015 from S.D. Bechtel Jr. Foundation for a nine-month planning grant to develop specific recommendations and outcomes
- ✧ Framing a STEM Education Strategic Plan with STEM Education Committee
- ✧ Envisioned model has an environment where teachers are supported by open-source developers and policies that encourage and support digital innovations from teachers and students

**WELL
STIMULATION
IN
CALIFORNIA**



SB4 Well Stimulation Assessment

✧ Report laid out in three volumes:

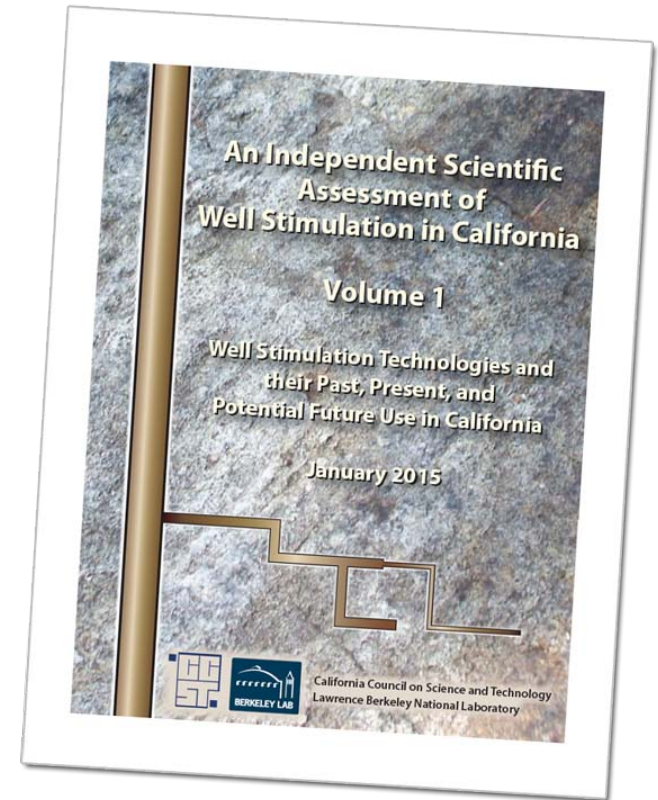
- I. Past, Present and Future Applications of Well Stimulation Technology in California
(released January 14, 2015)*
- II. Environmental Impacts of Well Stimulation Technology in California (delivery date: July 15, 2015)*
- III. Case Studies with Selected Evaluations of Environmental and Public Health Risk
(delivery date: July 15, 2015)*

Volume I

CCST gave a series of briefings for the public and policy makers at the state and federal level, and the report has been widely cited in the press.

Volumes II and III have been through a substantive peer review process and are nearing completion.

In addition to CCST and LBNL, researchers at various institutions are working on the report: Stanford University, University of the Pacific, Physicians, Scientists and Engineers for Healthy Energy, the Endangered Species Recovery Program at CSU Stanislaus, and Donald Gautier (USGS Ret.)



*For more information:
<http://ccst.us>*



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*Next meeting:
Oct. 26-27, 2015*