

LIGHTNING TALKS

- MORNING SESSION

Integrating Land Use and Climate Change on California's Central Coast: Impacts and Adaptations for Local Communities

Researchers: Ruth Langridge (UCSC), Tamara Wilson (USGS), Nathan Van Schmidt (UCSC), Mark Snyder (UCSC), Lorraine Flint (USGS), Michelle Stern (USGS), Rich Pauloo (UCD)

Partners: CCCC, City of Salinas, Elkhorn Slough Foundation

Modeling

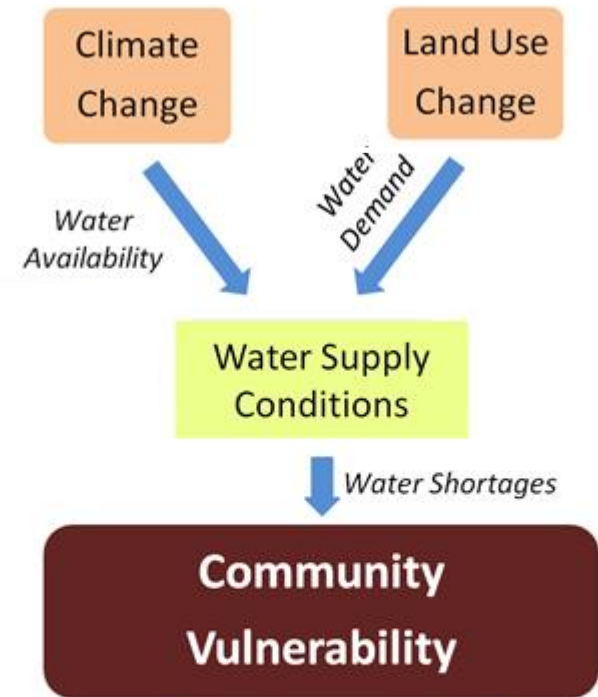
Projections of climate change and land use change to assess their coupled impacts on groundwater supplies during drought

Sensitivity Hotspots

Identifying where projected water shortages overlap with existing vulnerable communities

Scenario Analysis

Exploring 4-5 alternative futures based on different policies or trends



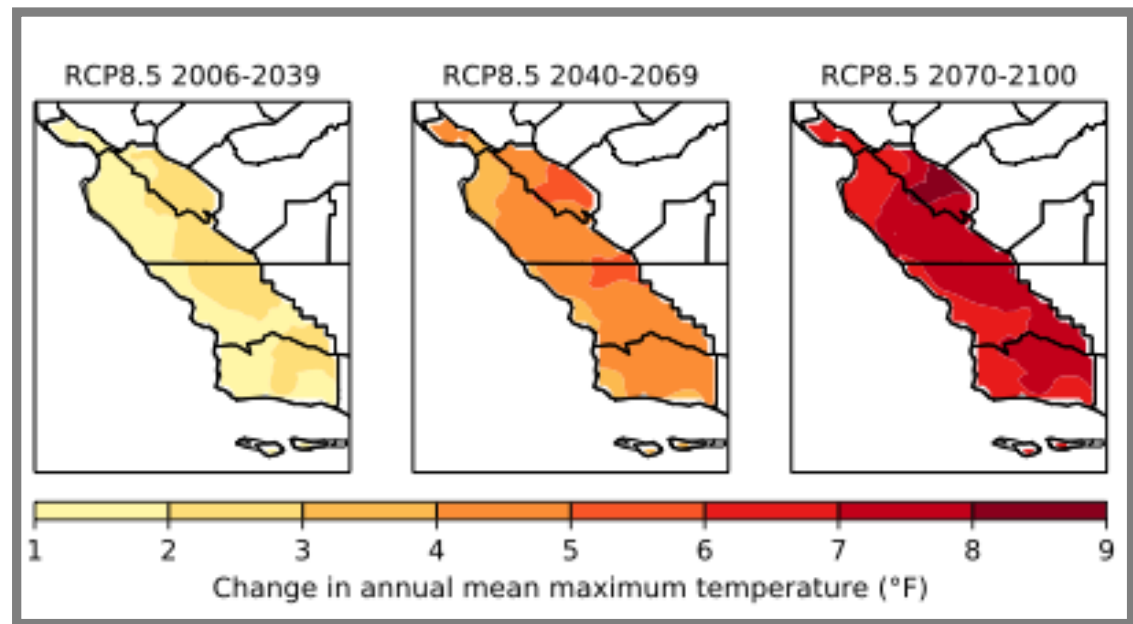
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CALIFORNIA STRATEGIC GROWTH COUNCIL

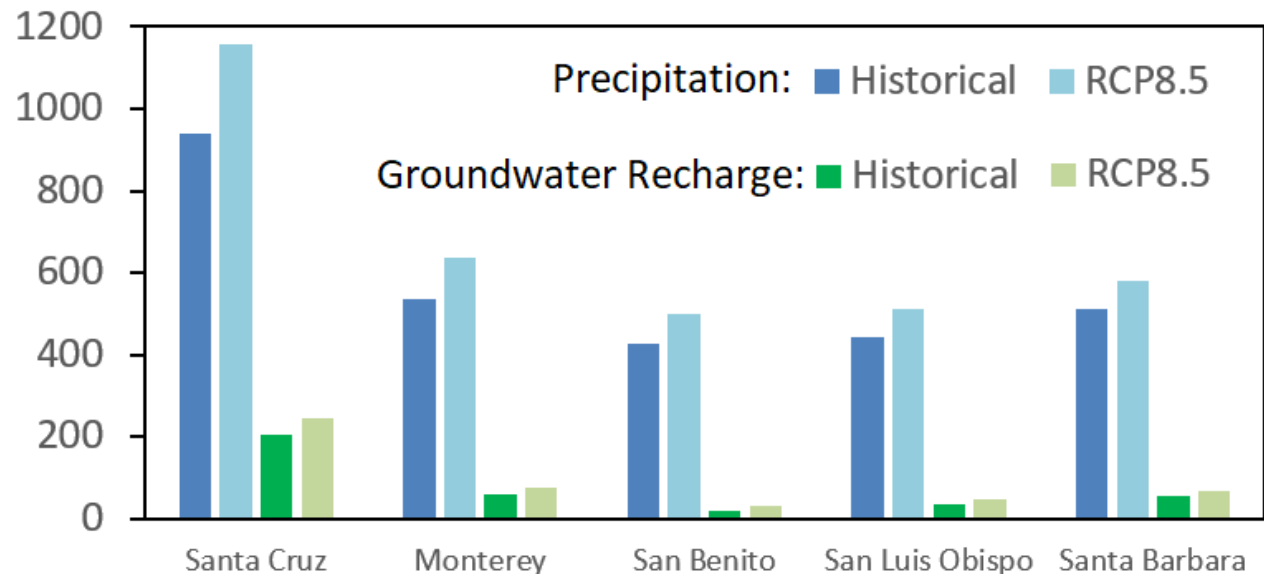
Climate Change

Substantial increases in temperatures -- will increase water demand



The biggest challenges to water security will not be from average conditions, but increasing variability and worse droughts

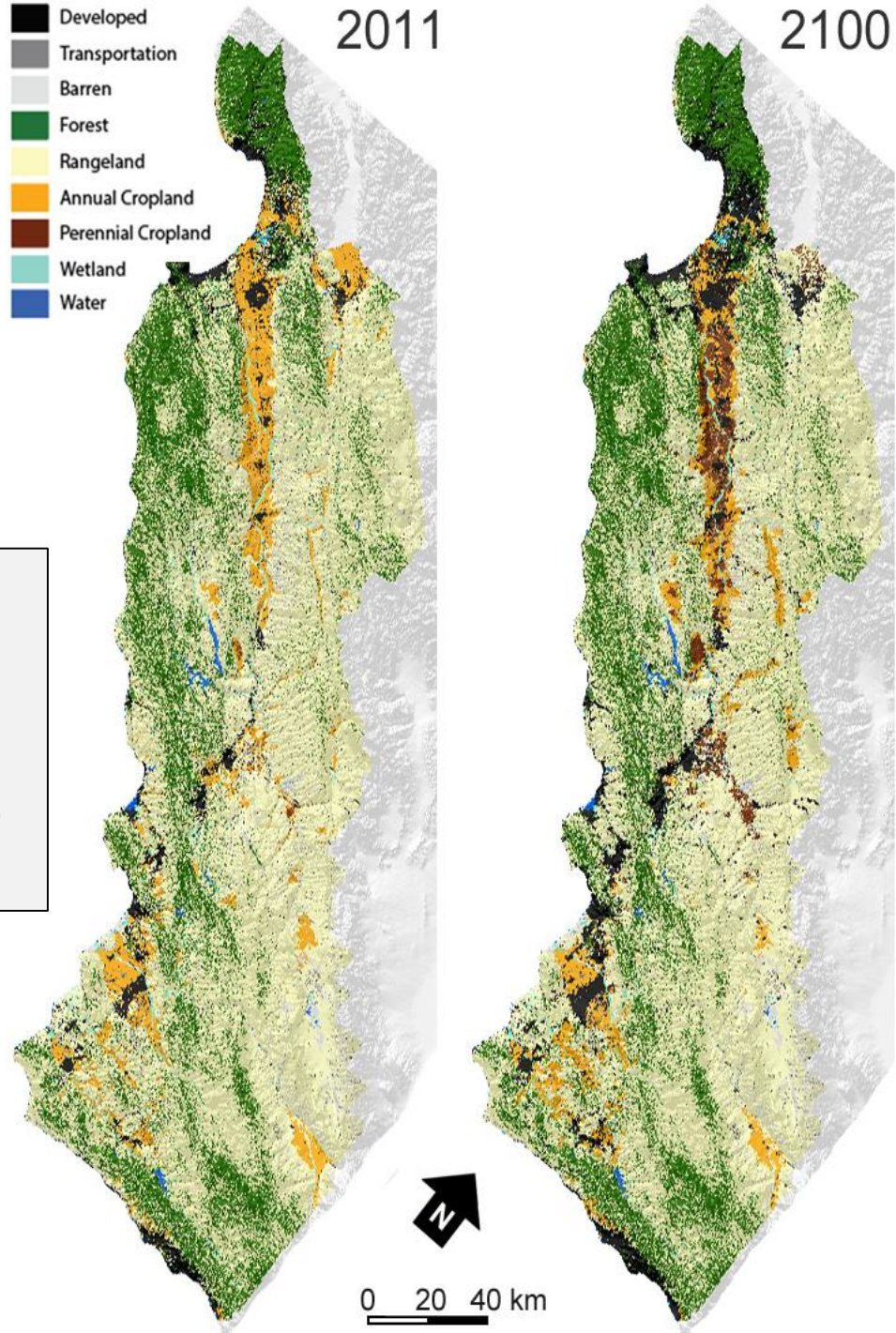
Modest increases in precipitation and aquifer recharge in non-drought years



Future Land & Water Use

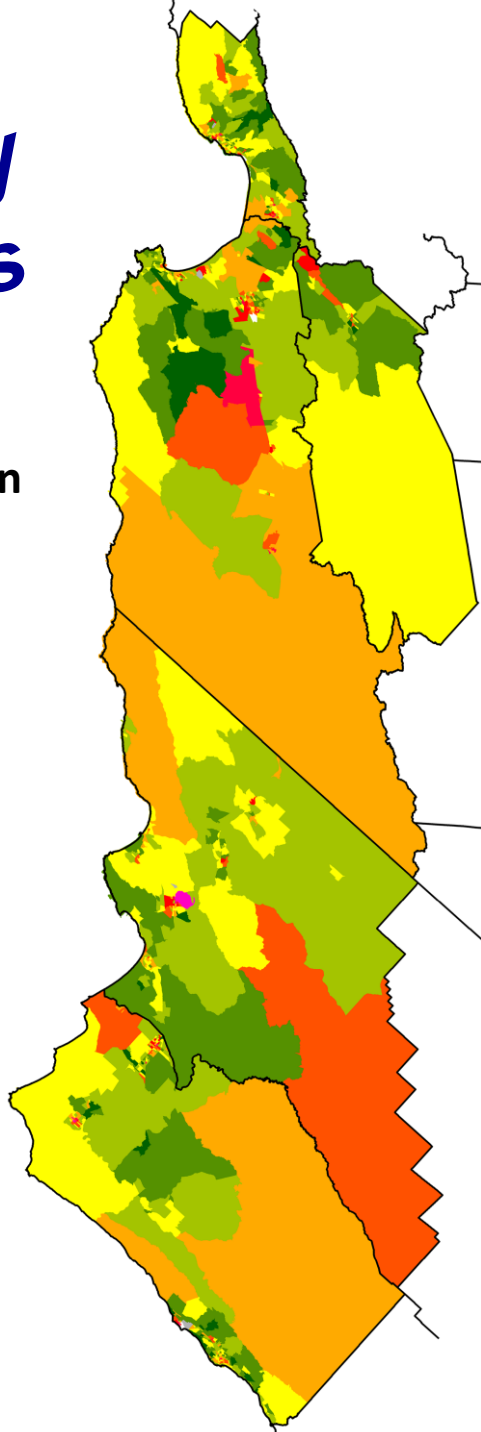
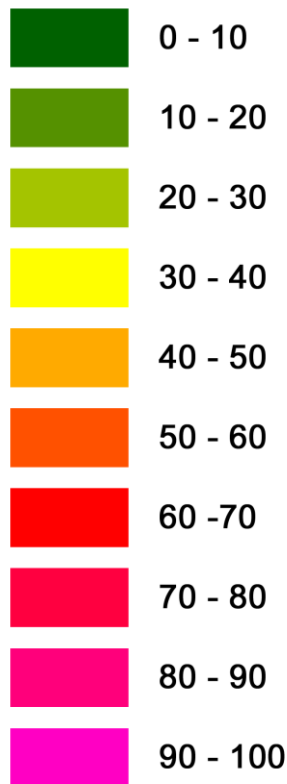
Business-As-Usual Model

- Annual Crops (-182,000 AFY)
- Perennial Crops (+149,000 AFY)
- Developed Land (+306,000 AFY)
- Overall (+273,000 AFY)



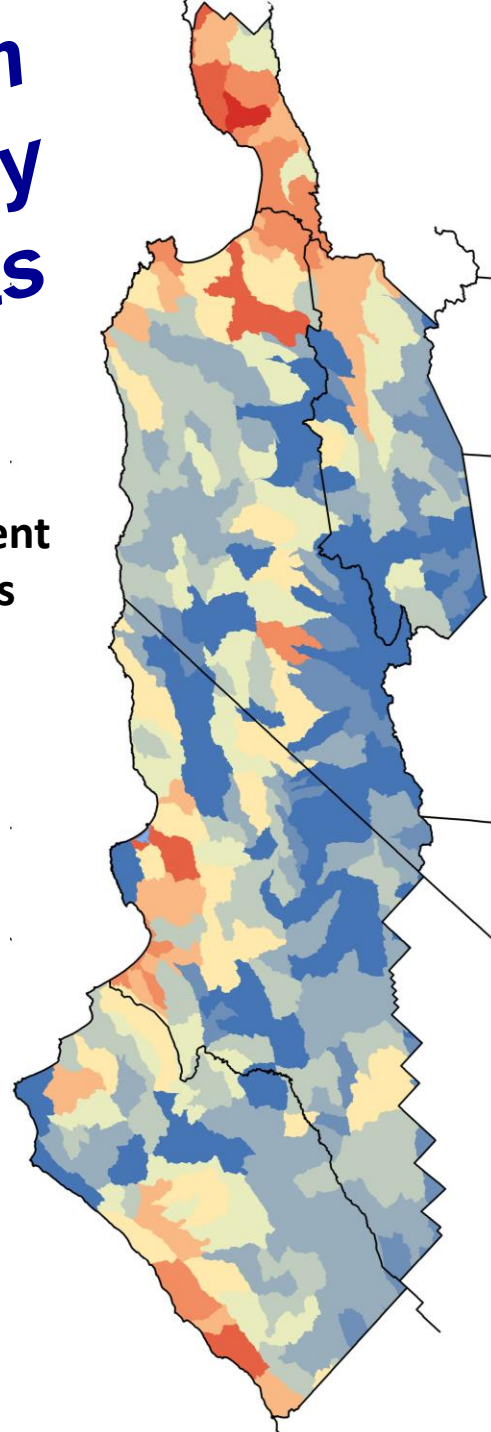
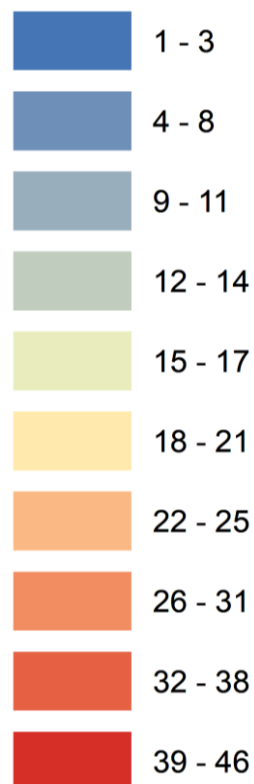
Social Sensitivity Hotspots

Percent of population
unable to afford
future water prices



Ecosystem Sensitivity Hotspots

Number of
freshwater-dependent
threatened species



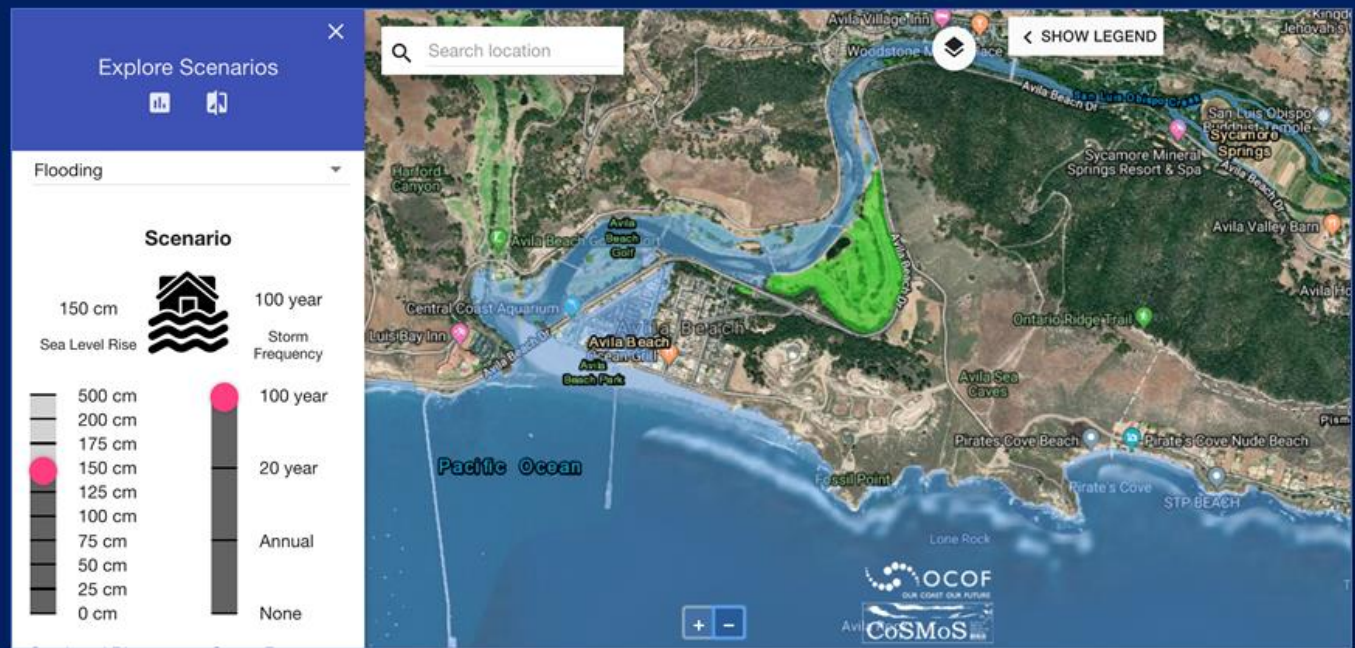
USGS Coastal Storm Modeling System (CoSMoS) & Point Blue Our Coast Our Future (OCOF)



Juliette Hart, Ph.D. | USGS



Maya Hayden, Ph.D. | Point Blue



www.ourcoastourfuture.org | www.usgs.gov/cosmos



Using Virtual Reality in Sea Level Rise Planning and Community Engagement

**Turner Station, MA
Santa Cruz, CA
Long Beach, CA**



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RACHEL COUCH

COASTAL CONSERVANCY

MARK ADATO

MONTEREY BAY COMMUNITY POWER

LAUREL ROTHSCILD ENERGY COALITION

ONE OTHER POP UP TALK?

LIGHTNING TALKS

- AFTERNOON SESSION



There are multiple sea level rise and flood visualization tools available in California - Sea the Future is a compare tool designed to help in the decision process

- Compare tool functions and capabilities
- Filter for desired task, use, or operation
- Access information on 8+ tools

Dan.Hossfeld@scc.ca.gov

Join the California Coastal Resilience Network for information on our upcoming launch webinar (September 2019)



BOB HILL
CITY OF SAN LUIS OBISPO

Central Coast Highway 1 Climate Resiliency Project

Elkhorn Slough & Moss Landing

- **Coastal Ecosystems and Climate Adaptation Planning**

CLIMATE

Daniel Cayan and Sam Iacobellis, SIO, UCSD

WATERSHEDS

John Melack, Bren School of Env Sci and Mgt

Edward Beighley, Northeastern University

Dongmei Feng, UMass Amherst

SHORELINE CHANGE & HAZARDS

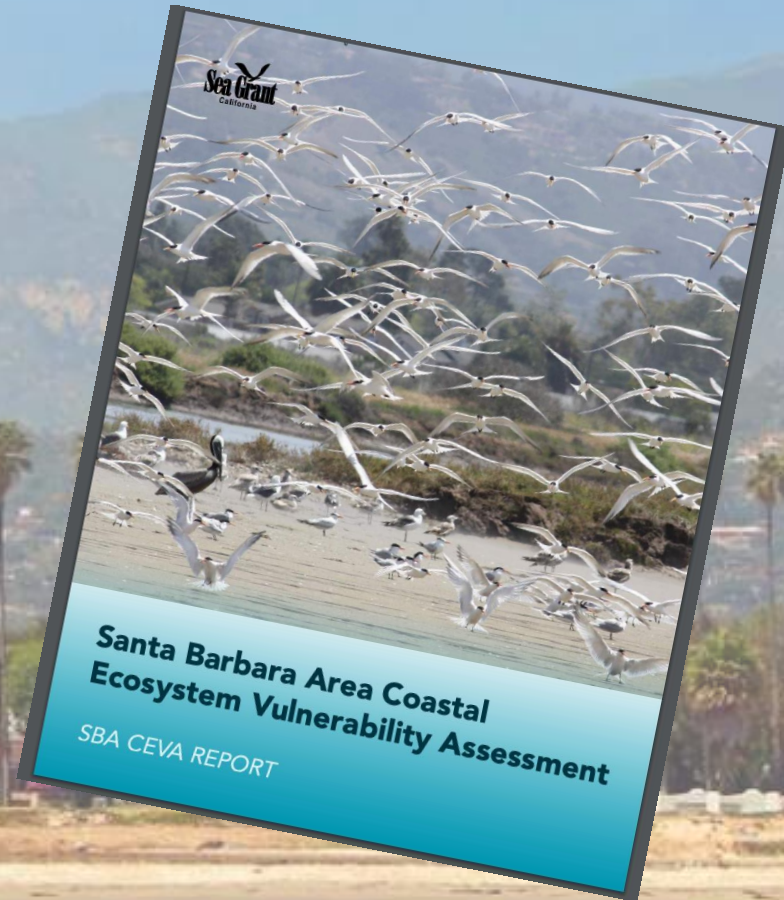
Patrick Barnard, USGS

BEACHES

Jenifer Dugan and Dave Hubbard, MSI, UCSB

WETLANDS

Henry Mark Page, MSI, UCSB



Central Coast Climate Collaborative & Central Coast Universities

Building Collaborations with faculty, staff, & students

Adrienne Greve
Cal Poly, SLO
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Welcome

This system is designed to query 4C members for collaboration on projects.

If you would like to be added to this database, please contact CONTACT NAME.

[Request Addition to Database](#)

Looking for a Collaborator?

With supporting text below as a natural lead-in to additional content.

[Search For a Collaborator](#)

New Features Coming Soon!

New Features Coming Soon!

Looking for a Collaborator?

Use the form below to query potential collaborators.

University Selection

Select... | ▾

Activity Keywords Selection

equity x heat x x | ▾

You can leave this blank to select all activity keywords.

Topical Keywords Selection

outreach x general plans x x | ▾

You can leave this blank to select all topical keywords.

Run Query

1 MORE POP UP TALK