



Localizing California Waters Conference Proceedings 2022

Collaborative Conversations
to Accelerate Water, Habitat
& Community

Yosemite National Park
Rush Creek Lodge
November 7-10, 2022

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Guiding Principles

Healthy watersheds, healthy communities.

Localizing California Waters (LCW) is a diverse network of land and water stewards* committed to community and watershed resilience by organizing local actions building toward holistic and coordinated land-based solutions. The annual conferences and other statewide events serve as the hub to connect, cultivate, and catalyze collaborative action. Through the “Localize” program, LCW inspires regional partnerships to implement projects that actualize the LCW vision.

(*Everyone is a land and water steward.)



Thanks to our LCW Steering Committee:

Laura Allen
Greywater Action, Founding member

Deborah Bloome
Accelerate Resilience L.A. (ARLA), Senior Policy Director

Lonnie Coplen
ARC Alternative and Renewable Construction, CEO

Martha Davis
*Mono Lake Committee Board Member and
Assistant General Manager/Executive Manager for Policy Development,
Inland Empire Utilities Agency (retired)*

Jann Dorman
Friends of the River, Executive Director

Debbie Franco
Water Solutions Network, Executive Director

Trathen Heckman
Daily Acts Organization, Executive Director

Regina Hirsch
Watershed Progressive, Executive Director

Lindsay Mattos
District Manager, Tuolumne County Resource Conservation District (TCRCD)

Nick Weigel
NorthStar, President

Bob Wilkinson
*Adjunct Professor, Bren School of Environmental Science and Management,
Senior Lecturer Emeritus in the Environmental Studies Program,
University of California, Santa Barbara*

Thanks to our Partners & Sponsors:



What is Localizing California Waters?

The Localizing California Waters (LCW) Conference connects unlikely allies towards the broader goal of water management throughout California by discussing local water approaches in an intimate setting.

LCW breaks down barriers to alignment through presentations, round table discussions, workshops and information networking to work towards an outcome of innovative solutions to local and global climate challenges by advancing local water policy and enacting best water management practices at an accelerated pace.

LCW facilitates:

- Community resiliency through collaboration
- Builds bridges across silos to foster new partnerships
- Connects water solutions to climate adaptation
- Incubates innovative approaches across water, land, natural resource and equity sectors
- A shared water vision among grassroots, NGO's and state policy organizations



Participants gather for a presentations, workshops and panel discussions.

What do you want to see more of next year?

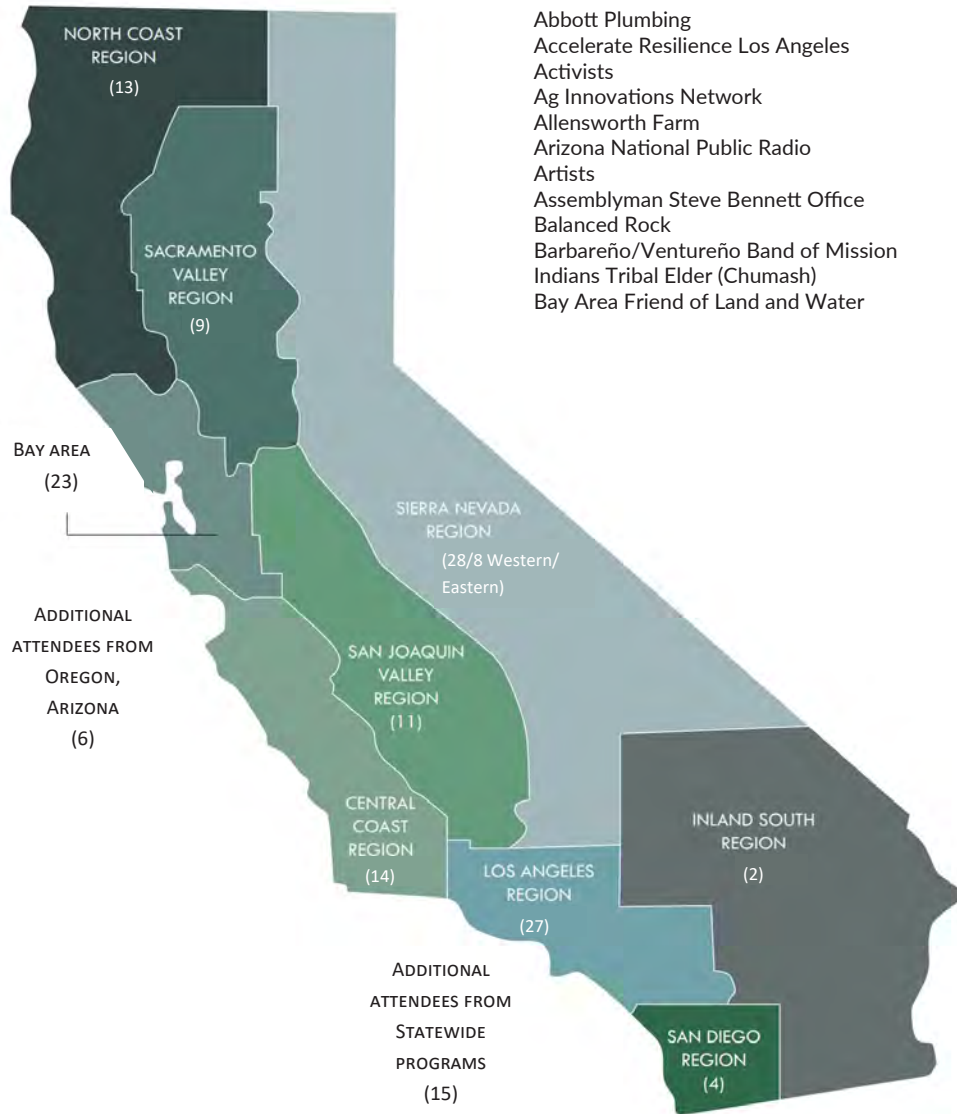
“A seat for younger generations at the table. Commitment from the “icons” of the industry to take mentoring rolls and ensure knowledge transfer to younger generations. Start conversations of how to empower new voices, make more seats at the table, and start passing the torch.”

-2022 Conference Participant

Localizing California Waters

November 2022 Annual Conference
 Rush Creek Lodge, Yosemite Region

List of Participating Organizations (103) & Participants (160)



Abbott Plumbing
 Accelerate Resilience Los Angeles
 Activists
 Ag Innovations Network
 Allensworth Farm
 Arizona National Public Radio
 Artists
 Assemblyman Steve Bennett Office
 Balanced Rock
 Barbareño/Ventureño Band of Mission Indians Tribal Elder (Chumash)
 Bay Area Friend of Land and Water

Bay Maples
 Bellwether Collaboratory
 Cal Poly SLO Students
 California Coastkeeper Alliance
 California Conservation Corp
 California Department of Fish and Wildlife
 California Department of Water Resources
 California State Water Resource Control Board
 California Water Data Consortium
 California Water Efficiency Partnership
 Catching H2O Inc
 Climate Artists
 Daily Acts

Delta Stewardship Council
 DIG IN
 Dihydroxide, Inc
 Dos Pueblos Institute
 Eastern Sierra Land Trust
 Farm Bureau
 Farmers, Ranchers
 Fibershed
 Friends of Inyo
 Friends of the River
 G3LA, LLC
 Grassroots Institute - Water Coalition
 Greywater Action
 Groundworks Richmond
 Harvesting for DryLands
 Hyphae Designs
 KT Lodging, Inc.
 Mama Tree
 Marin Resource Conservation District
 Mendocino Resource Conservation District
 Mono Lake Committee
 Mountain Maidu Consortium
 National Resource Conservation Service
 National Fish and Wildlife Federation
 NorthStar
 O'Cain Consulting, Inc.
 Oasis Designs
 Occidental Arts & Ecology Center
 Office of Planning Research CA Gov Office
 Office of Senator Monique Limón, SD 19

Ojai Valley Green Coalition
 Owens Valley Indian Water Commission
 Pacific Institute
 Quail Springs
 RainCatch San Diego
 Reflection Director
 Regenerative Water Alliance/Humanity United
 Retired, Chief Consultant, Senate Committee on Natural Resources and Water
 San Francisco Estuary Institute
 Santa Barbara Fire Safe Council
 Save our Salmon
 Sherwood Engineering
 Small Community Water Center
 Southern MiWuk Nation Tribal members
 Spherical
 SPUR
 Stanislaus County
 State Coastal Conservancy
 Sustainable Conservation
 Swift Water Design
 The Monarch Fellowship
 The Nature Conservancy
 The Water Folk
 Traditional Lifeways
 Tuolumne Band MeWuk
 Tuolumne County
 Tuolumne County Resource Conservation District
 Tuolumne River Trust
 Turlock Irrigation District
 UC Berkley Student, Environmental Law
 UC Santa Barbara, Professor Emeritus
 United States Forest Service Inyo District
 United States Forest Service Regional
 United States Forest Service Stanislaus District
 University of California, Merced
 Upper Merced River Watershed Council
 Urban Water Group, Inc
 Ventura County Resource Conservation District
 Ventura Water Data
 Water Efficient Gardens
 Water Solutions Network
 Watershed Progressive
 West Yost
 Wildlife Conservation Board
 Yosemite Conservancy



2022 Agenda & Topics

MONDAY

Tribal Welcome *Bill Leonard, Southern Sierra MiWuk Nation*

California to the Arid West: Local to Regional Approach for Water, Flood, Fire, Habitat, Extreme Heat

How small, resilient land based actions can add up to regional and community level transformation. Examples of how we can not be at cross-purposes, reach various community values and benefits, and work better, together.

Regina Hirsch, Watershed Progressive

Mapping the Collaborative: Stories Capture from Around the State

How and what are you working on toward local approaches? Hear highlight stories from participants, and map them virtually, on the UN Global Compact Water Action Hub, together. This map will be used throughout the conference proceedings to capture stories and projects to the UN Global Compact Water Action Hub.

Cora Kammeyer, Pacific Institute

Water, Equity & Sense of Place

California's water affordability crisis is growing rapidly, exacerbated by local effects of climate change and most deeply impacting disadvantaged communities. How can we collaborate across communities to address these problems?

Kyle Jones, Community Water Center; Laura Feinstein, SPUR (San Francisco Bay Area Planning & Urban Research Association) Moderator: Martha Davis, Mono Lake Committee

Shifting the Paradigm: Why & How We Need Storytelling Now

A Discussion with Leading Directors & Storytellers

Emmett Brennan, 'Reflection' Film Director; Julie Tumamait-Stenslie, Barbareño/Ventureño Band of Mission Indians (Chumash); David Fenster, Arizona NPR; Kyndall Noah, Owens Valley Indian Water Commission, Moderator: Trathen Heckman, Daily Acts

California Water Story: A Story in the Making

Dennis O'Connor, former Chief Consultant, Senate Committee on Natural Resources & Water

What do you want to see more of next year?

"More youth involvement, more focus on education and engagement. More connection between inner transformation and work in the world, the how as important as the what."

-2022 Conference Participant

TUESDAY

Accelerating Transformational Change: What if We Take Heart, Take Action?

The power in small, local actions adding up to regional transformation. Case studies for collaboration through local approaches, connecting to, and strengthening centralized approaches, while transforming wellness of individuals in our communities.

Trathen Heckman, Daily Acts & Author of Take Heart Take Action

Watershed Resilience Frameworks: A Parcel to Watershed Approach

Overview of what Watershed Frameworks and approaches can do for optimizing and accelerating resilience and policies while accelerating collaborative watershed wide investments. A presentation of two example efforts and how they can be useful regional to statewide, and audience discussion of how these could be expanded, integrated and used with other models.

Eric Tsai, Department of Water Resources; Jamie Whiteford, Ventura County Resource Conservation District, Moderator: Brian Epstein, Dihydroxide, Inc.

Working Lands: Scaled for Impact

Can working lands offer the optimum landscape scale investment for climate change, particularly for local economies, habitat, water, and forest health? A diverse panel of hands-on community planners and hands-on doers discuss benefits, barriers and streamlining cross-purposes incentive programs of working land restoration for multiple benefits including community health, habitat, carbon sequestration, fiber, fire buffer and recovery, flood reduction and, of course water quality and quantity.

Linda MacElwee, Mendocino County Resource Conservation District; Rebecca Burgess, Fibershed; Simone Albuquerque, Marin Resource Conservation District; Johnathan Katz, Katz Farms, Moderator: Lindsay Mattos, Tuolumne Resource Conservation District

Learning Together with Collaborative Data: Equal Access to Ecosystem & Opportunity Information

Reiterative learning from real time data and opportunities analysis. This panel discusses how to transform community learning, create inclusive decision making, reduce barriers and streamline cross-purpose incentive programs of working land restoration for multiple benefits including community health, habitat, carbon sequestration, fiber, fire buffer and recovery, flood reduction and, of course water quality and quantity.

Kevin Delano, State Water Resources Conservation Board; Mark Kenegos, Watershed Progressive; Andy Lipkis, Accelerate Resilience Los Angeles; Devon Provo, Accelerate Resilience Los Angeles, Moderator: Hannah Ake, California Water Data Consortium



2022 Agenda & Topics

The Beaver Revolution.

A Workshop Beaver led-design for healthy soils, habitat, and drought and fire resilience can lead to revolutions in our approach to how we live and interact with our places we need to protect, restore and revive.

Kate Lundquist & Brock Dolman, Occidental Arts & Ecology Center

The Hydrated Toolkit: Key Concepts for Shade, Food, & Community Health

Community-led design for healthy soils, habitat, and drought and fire resilience can lead to revolutions in our approach to how we live and interact with our places we live, work and play. Learn how local farms can act as community health drivers, and connect with community lead transformative assessments that connect to forest health, as well as rebuilding our communities and our thought process during fire recovery efforts in rural and urban areas.

PANEL TOPICS: 1. Urban Hydrated Meadow 2. Healthy Soils: The Fire-Water-Habitat Nexus 3. Shade, Food and Water for Community Health Care 4. Youth and Community Led Design
Trina Cunningham, Maidu Summit Consortium; Dennis Hutson, Allensworth Farm; Aja Bulla Zamastil, Watershed Progressive, Moderator: Regina Hirsch, Watershed Progressive

Mitigating Risk Through Resilience: New Concepts for Data, Communities, Working Lands & Habitats

A case study of a holistic approach to wildfire risk mitigation through synthesizing landscape, built environment, and community resilience. The Regional Wildfire Mitigation Program (RWMP)— is a novel, holistic approach to wildfire mitigation underway in coastal Santa Barbara County. This scalable framework focuses on using partnerships, scientific rigor and community input to develop solutions to wildfire risk that provide ecosystem and societal benefits equitably to wildland urban interface (WUI) communities.

Graham Wesolowski, SIG-Nal; Ryan Silsbee, Watershed Progressive

Reflection Panel: Getting Frameworks to the Ground

Dennis O'Connor, former Chief Consultant, Senate Committee on Natural Resources & Water Moderator: Bob Wilkinson, UCSB Bren School



Participants gather for a panel discussion.



WEDNESDAY

The Policy | Planning Pathway

From Parcel to Watershed: Implementing the Governor's Water Supply Strategy

As California enters what may be its 4th year of drought, how can parcel scale actions-- from water efficiency to healthy soils-- help implement the Governor's Water Supply Strategy?
Eric Tsai, Dept. of Water Resources; Charlotte Ely, CA State Water Resources Control Board Moderator: Martha Davis, Mono Lake Committee

Intersections in Local Opportunities for SGMA, Water Agencies & Environmental/Public Health

Mapping white spaces and collaborative opportunities between water authorities and local jurisdictions is critical to planning meaningful actions. These mosaics of relations are confusing to water authorities, county efforts, and to local landowners. Hear and discuss with our panelists ideas to accelerate and incentivize local water approaches at scale while meeting needs of those who occupy the white spaces between.
Andy Rogers, Engineering Manager, West Yost; Rob Kostlivi, Stanislaus County Environmental Health Director Moderator: Tia Fleming, CA Water Efficiency Partnership

Accelerate and Innovate Towards Collaborative Funding: Connect Regional Efforts to Optimize & Evaluate Success

Perspectives from the Pacific Institute and Sustainable Conservation on the California Water Action Collaborative (CWAC)- a consortium of companies and NGOs working together to catalyze innovative water projects in California.
Cora Kammeyer, Pacific Institute; Joe Choperena, Sustainable Conservation



2022 Agenda & Topics

Installers/Designers Pathway

Innovations in Installation & Design for Fire, Forest Health, Safe Drinking Water, Food Resilience, Watershed & Community Health

Brent Buckman, Hyphae Designs

Innovation Stations:

Innovations in Greywater

Innovations in Rainwater

Innovations in Stormwater

Innovations in Water Reuse

Irrigati on Dosing & Controller Feedback

Innovations in Geothermal

& Surface Cooling Techniques

Innovations in Assessment Techniques

Innovations in Carbon Farming

Innovations in Beaver and Keystone Species

Management

Innovations in Pollinator & Plant Community Health

Innovations in Tree Health

Innovations in Ecological Fire Resilience

for Wildland Urban Interface

Little Water, Big Ideas: How Disaggregated Water Infrastructure is a Key Element in California Water Resilience

Erik Ekdahl, Deputy Director Division of Water Rights, State Water Resources Control Board

Part I: Collaborative Watershed Resilience Workshop: Streamflow, Habitat, Health, and Fire Recovery Tools, A Regional Watershed Workshop

Work side by side with each other toward understanding approaches for healthy resilient watershed communities using watershed framework guiding principles.

Regina Hirsch, Watershed Progressive; Debbie Franco, Water Solutions Network; Brian Epstein, Dihydroxide, Inc.

Part II: Funding Clinic Workshop: Reduce Cross-Purposes, Increase Partnerships, Leverage Watershed Tools and Approaches A Ground Up, Resilience Hub Funding Workshop A

Ground Up, Resilience Hub Funding Workshop

Work side by side with funding partners, as well as statewide participants with steps toward aligning funding partnerships, approaches for a healthy resilient community using watershed framework guiding principles.

Reflection Panel

Moderator: Bob Wilkinson, UCSB Bren School; Dennis O'Connor, former Chief Consultant, Senate Committee on Natural Resources & Water; Sean Bothwell, Executive Director, California Coastkeeper Alliance

What do you want to see more of next year?

“Educational framework for young people interested in joining the ranks of LCW. Ask regional partners to send interested candidates to LCW and hold a water career fair for them.”

-2022 Conference Participant



Participants showed up, even in a snowstorm, making for a reflective gathering.

THURSDAY

Abundance & Community Through Action

Brad Lancaster, Harvesting for DryLands

Grass Roots to Grass Tops: Transforming & Co-Building Resilient Communities

Seasoned key local based authors, ecologists, analysts, and educators discuss where the arid west is at, and recommendati on of where to go next.

Laura Allen, Greywater Action; Brad Lancaster, Harvesting for DryLands; Brock Dolman, Occidental Arts & Ecology Center; Art Ludwig, Oasis Designs, Trathen Heckman, Daily Acts; Andy Lipkis, Accelerate Resilience Los Angeles

The Nature Based Economy: Transforming and Co-Building Resilient Communities

A revolution intersecting fire, flood, drought, shade is coming through direct technical assistance and your community now. How do we track these incentives? How do we create local-based industry? This job revolution is comparable to solar industry sweeping California.

Jessica Duncan, Groundworks Richmond; Meredith Hardy, California Conservation Corp; Adam Zamastil, Headwaters Initiative Partnership

The Power of Visualizing Landscape Transformation & Storytelling: A Collaborative Messaging Workshop Capture

How do we engage our communities in taking immediate, and ecologically specific, action while thinking holistically about approaches, tools, and benefits to move towards regional climate resilience?

Aja Bulla Zamastil, Mari Beltran & Dominic Riolo, Watershed Progressive

Reflection Panel: Next Steps for 2023

Dennis O'Connor, former Chief Consultant, Senate Committee on Natural Resources & Water Moderator: Bob Wilkinson, UCSB Bren School Noon

Closing Circle & Tribal Blessing



Posters & Interactive Exhibits

- Sig-NAL Regional Fire Management Program
- Visualizing Abundance with Opportunities Analysis
- DWR Merced River
- Headwaters Initiative Program
- SWRCB Streamflow and Groundwater Model
- Ray Powers Climate Change Art Exhibit
- Ojai Valley Inn Water Resilience Plan
- Petaluma Watershed Land Resilience Partnership
- Ventura River Instream Flow Framework
- Beaver Revolution
- Solarpunk Vision
- ARLA Drought Resilience
- Home 2 Headwaters: Where Does Your Water Come From?
- Take Heart, Take Action
- Ackerson Meadow Hydrogeology
- Art Ludwig Oasis Designs
- Creating a Hydrated Bufferstrip with Wastewater

Music By: Del Rio

Watershed Communities Film Festival Films
Discussion & Fireside chat with storytellers & directors

FILMS:

- Paya
- Water Harvester

What do you want to see more of next year?

“I appreciated how the [conference] included physical elements, like hot tub yoga, dancing, presentations from the audience working groups. I hope that keeps up, it keeps my energy up and keeps me engaged.”

-2022 Conference Participant



The group gathers in a closing circle on the final day of the conference.



Outcomes & Next Steps

These outcomes and next steps were derived from the conference notes (see appendix), and a post-conference survey. Outcomes are used to inform next year’s focus for topics and agenda.

TIER I RECOMMENDATIONS 2023 Goals

Add diversity of voices to the table at LCW 2023 & other watershed networks.	Inform state & private funding partners on need for long-term capacity for watershed networks.
Connect state initiatives to local collaboratives, frameworks & ground-truthed case studies through clear information mapping to state watershed resilience initiatives.	Host regional LCW meetings to work on watershed resilience approaches.

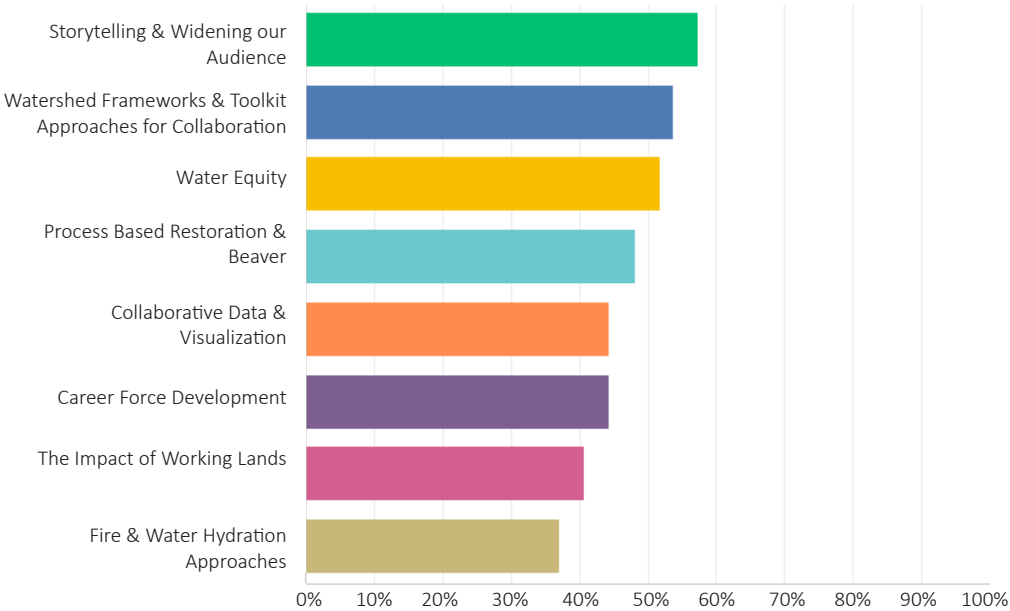
TIER 2 RECOMMENDATIONS 2023-2024 Goals

1. Inform state & private funding partners on need for capacity funding for ‘Careerforce’ Development for youth and current restoration growers, installation/maintenance providers.
2. Map out local approach based case studies and ideas (UN Water Action Hub.)
3. Create a statewide workgroup dedicated to identifying next steps to co-create a resilient future with youth leadership through public curriculum and public-private partnerships.
4. Create a clear pathway for collaborating with Corporate-Public funding for local approaches.

TIER 3 RECOMMENDATIONS Ongoing recommendations

1. Create a list-serv for communication.
2. Tour in 2023 a few regional ‘hot spots’ to which are currently, or are working towards, local approaches that connect to watershed and regional resilience.
3. Host a two-day clinic for design installers to innovate local approaches with tribal and other community leaders.
4. Host quarterly LCW statewide workgroup meetings to collaborate and dive deeper with state/grassroots connections for Frameworks, Career-force, Toolkits/Data/Design, Messaging/Storytelling
5. Assist with connecting local USFS District Ranger, Environmental Resources/Health Directors, SGMA basin/Water Authority and local Air Pollution Control Board to local watershed approaches.
6. Assist in modifying rebate structure for on-ground transformations.

What topic was most important to your work and organization?



Outcomes & Next Steps

Sectors you want to invite and see more of at next year's conference include:

- Youth, youth groups & educators
- Landscape design educators
- Climate artists
- Engagement specialists who can help with outreach and messaging
- Community and nonprofit organizations
- State and Federal agencies
- Resource Conservation Districts
- Water Rights Lawyers
- Local policy makers and city council members
- More BIPOC peoples
- Students
- Farmers and the Agricultural community
- Tribal representation
- Permaculture designers and installers

What do you want to see more of next year?

"I'd love to see a stronger thread around equity and environmental justice throughout the program next year. The first session on water rates and vulnerable communities was great to have at the beginning of the conference. We need more of these kinds of sessions, and sessions that may not be directly about EJ but hold the perspective/lens of equity in their presentation."

-2022 Conference Participant



Setting the table for other groups and species. Postcards were handed out to ensure that we're setting the table by inviting other sectors next year.

Appendix

I. Speakers & Bios

II. Collective Notes from Topic Discussions (Flipchart notes)

III. Additional Photos



Erik Ekdahl from the State Water Resources Control Board talks about Little Water, Big Ideas.



Nina Gordon-Kirsch shares about educating youth about California water systems.

LOCALIZING CALIFORNIA WATERS

BUILDING COMMUNITY RESILIENCE THROUGH COLLABORATION



Laura Allen

Laura Allen is a founding member of Greywater Action and has spent the past 15 years exploring low-tech, urban, sustainable water solutions. She is the lead author of the San Francisco Graywater Design Guidelines for Outdoor Irrigation, and authored *The Water-Wise Home: How to Conserve and Reuse Water in Your Home and Landscape* (Storey Press, 2015) and *Greywater, Green Landscape* (2017). She has a BA in environmental science, a teaching credential, and a master's degree in education. Laura leads classes and workshops on rainwater harvesting, greywater reuse, and composting toilets. Laura has presented widely on greywater reuse, including at the Water Smart Innovations Conference, Bioneers, California Environmental Health Association conference, and California Landscape Contractors Association conference. She's participated in state greywater code developments in California and Washington State and is on the technical advisory committee for IAPMO's Water Efficiency Standard (We-Stand). Laura was featured in an Ask This Old House episode on greywater and was the 2014 recipient of the Silicon Valley Water Conservation Award of Water Champion.



Simone Albuquerque

Simone Albuquerque has over six years of experience coordinating programs to support food systems in California and conserve natural resources. She recently joined the Marin RCD to manage the Conserving Our Watersheds program that helps ranches and dairy comply with water quality regulations. Simone has a M.S. in Environmental Science & Management from the University of California, Santa Barbara where she focused on water resources management and market-based solutions. Prior to joining the MRCD Simone collaborated on a geospatial tool that prioritizes forested hillslopes by their risk to drinking water supplies following wildfire. This tool aids land and water managers in California's headwaters in leveraging limited resources to strategically reduce forest density. In 2019, she published a scientific article in *Insects* on urban farm and garden management practices and their implications for insect biodiversity. Throughout her career Simone has created educational materials for all-ages that characterize food and water systems locally, nationally, and globally.



Shahab Araghinejad

Shahab Araghinejad is a water resource control engineer at the Instream Flow Unit of the Division of the Water Rights of the State Water Resources Control Board. Shahab has more than 15 years of experience in water resources and environmental management and engineering. Shahab manages projects on integrated water resources analysis; decision support systems, and data driven modeling in water resources and environmental fields.



Baron Barrera

Baron has served as a California Environmental Quality Act (CEQA), California Endangered Species Act (CESA), and Drought Resiliency/Water Rights Coordinator for the California Department of Fish and Wildlife (CDFW). Prior to his time with CDFW, Baron was a CEQA Project Manager for the Port of Long Beach and a Biologist for the California Department of Transportation (Caltrans). Baron received a B.A. in Earth Sciences from the University of Southern California (2014) and an M.S. in Environmental Science and Policy from Johns Hopkins University (2017).



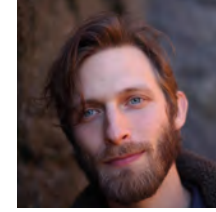
Mari Beltran

Mari is an artist and designer. At Watershed Progressive she manages programs and collaborative efforts that focus on the intersection of arts, community engagement, and climate resilience. She holds a Master of Architecture from Southern California Institute of Architecture, and a Masters in Latin American Studies from UCLA.



Rebecca Burgess

Rebecca Burgess is the Executive Director of Fibershed. She has two decades of experience working at the intersection of ecology, fiber systems, and regional economic development. She is the author of the best-selling book *Harvesting Color*, a bioregional look into the natural dye traditions of North America, and *Fibershed: Growing a Movement of Farmers, Fashion Activists, and Makers for a New Textile Economy* released in 2019. She has taught at Westminster College, Harvard University, and California College of the Arts. She also holds a new board position at the Livestock Conservancy and is serving on the leadership council of the Center for Regenerative Agriculture and Resilient Systems at Chico State University.



Emmett Brennan

Emmett is an artist and story-teller who uses film as a way to orient humanity towards care, curiosity, and repair. Both poetic and practical, his work gives momentum to the cautiously hopeful dreams in our hearts and offers deep insight into the interdependent relationships we share with the whole of life. He is most well known for producing 'Inhabit: A Permaculture Perspective' and directing 'Reflection: a walk with water,' which premiered at Tribeca and won an Audience Favorite award at Mill Valley. Emmett built a cabin in the woods of Northern California where he lives amongst friends and community.



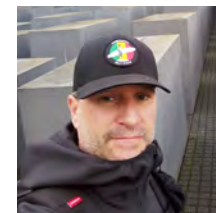
Aja Bulla-Zamastil

Aja Bulla-Richards is an architectural and landscape architectural designer, public artist, and educator. She works at the intersection between vast social, ecological and conceptual systems and everyday experience. As the Creative Director at Watershed Progressive Aja is responsible for managing, designing and coordinating resilient landscape design projects and educational programs throughout California. As a lecturer in the landscape architecture and urbanism graduate program at USC Aja leads design studios that address adapting our constructed world to shifting natural and sociocultural forces. Aja's ongoing research questions dominant cultural narratives, and explores multiple forms of knowledge formation and co-creation. Her projects explore how we can re-imagine and transform monofunctional systems into resilient socio-ecological cycles that engage and re-enchant everyday experience, promote alternative cultural practices, and uncover latent ecological processes. She holds an M.S. Architecture from the Arid Lands Institute at Woodbury University; M.L.A. and M.Arch from University of Virginia, School of Design, and a B.A. in Architecture from University of California Berkeley.



Debbie Franco

Debbie is Managing Director of the Water Solutions Network. The Network provides an intensive cohort-based learning experience designed to expand and diversify the community of water leaders crossing boundaries, connecting resources, and choosing bold action while collaboratively working toward equitable and sustainable land and water stewardship. Before joining the Water Solutions Network, Debbie spent 10 years in the California Governor's Office of Planning and Research, ultimately serving as the Senior Advisor on Water and Rural Affairs. In that role, she was known for her commitment to collaboration across agencies, and between agencies and stakeholders. Debbie served on Governor Brown's Drought Task Force as the Local Drought Liaison, focusing on local government and local agency assistance and household water supply shortages. She also served on the Forest Management Task Force that spanned the Brown and Newsom administrations, leading the Rural Economic Development Steering Committee/Wood Utilization Work Group. Debbie participated in and contributed to the development of California's historic Sustainable Groundwater Management Act. Debbie sits on the Board of Directors for the California Water Data Consortium and the Advisory Council for the Public Policy Institute of California's Water Policy Center. She was the inaugural recipient of the Debbie Davis Graduate Student Award, a recognition named in her honor (maiden name) and still awarded by the UC Irvine Associated Graduate Students. She also received the Planning and Conservation League's Environmental Justice Advocate of the Year Award in 2010. Debbie holds a Bachelor of Arts degree from UC Davis and a Master of Arts degree in Social Ecology from UC Irvine.



Joe Choperena

Joe is the Project Director of Water Resources for Sustainable Conservation. Using his agricultural and water management experience, he partners with diverse stakeholders to design and implement groundwater recharge strategies and practices, customized to their specific needs and local characteristics, to achieve interrelated benefits for their communities, the environment, and agricultural systems. He has over 20 years of professional experience working for private businesses, the federal government, and non-governmental organizations. His experience includes working in production agriculture, micro-lending, nutrient management, biofuels, renewable energy, integrated pest management, international business development, and water conservation and management. Joe earned a Master of Science in International Agricultural Development from the University of California, Davis and a Bachelor of Science in Agribusiness and a Spanish Minor from California Polytechnic State University, San Luis Obispo.



Kyndall Noah

Kyndall is a citizen of the Choctaw Nation of Oklahoma. He is married to Ramona Noah, and they have two children, Kwyn'a 'Ossi Noah and Kyni'i Hushvtla Noah (Mahli). He graduated from Haskell Indian Nations University (HINU) with a degree in Indigenous American Indian Studies and received his graduate degree in American Indian/Alaskan Native Social Work from the Brown School of Social Work at Washington University in St. Louis. Kyndall has a strong background in community engagement and working with communities to address social issues. Kyndall has worked as the Communication Specialist/ Project Coordinator since 2019. He utilizes multiple platforms such as social media, press releases and organized events, for increased outreach in telling the water story of the Paiute. These narratives tell a story of survival, resilience, and the cultural history of the Nüümü with the overarching goal of securing land and water rights for the people.

LOCALIZING CALIFORNIA WATERS

BUILDING COMMUNITY RESILIENCE THROUGH COLLABORATION



Trina Cunningham

Trina is Mountain Maidu from the Upper Feather River and is working to integrate traditional indigenous ecology into landscape scale conservation through inter agency and inter tribal partnerships and collaboration to ensure indigenous cultural and language perpetuity. She is working with tribal communities, youth, and elders to retain refined systems of knowledge through meaningful access to ancestral homelands. Her favorite events are bringing together community knowledge holders, boots on the ground, and decision makers in natural environments to further learning about the systems we are working and making decisions in, how to leverage resources and become more efficient, build on strengths, and identify policy issues that need adjustment to enable and empower the work that need to be accomplished.



Martha Davis

Martha Davis retired in late 2017 from her position as Assistant General Manager/Executive Manager for Policy Development at the Inland Empire Utilities Agency (IEUA). Since 2000, Ms. Davis led many of the Agency's award-winning planning and green programs including initiatives promoting water efficiency, renewable energy, storm water capture, recycled water and climate resiliency. Ms. Davis continues to serve on the board of directors of the California Section of the WaterReuse Association, and on the boards of the Mono Lake Committee, Sierra Institute for Community and Environment, the Community Water Center, the Rose Foundation Northern California Grassroots Fund, and the recently established Water Efficiency Trust. Previously, Ms. Davis served as the Executive Director for Californians and the Land (1998-2000) and for the Mono Lake Committee (1984-1996). Under her leadership, the Mono Lake campaign culminated in a unanimous landmark public trust decision by the State Water Resources Control Board to protect Mono Lake. Ms. Davis graduated from Stanford University cum laude with a degree in human biology and received her master's degree from the Yale School of Forestry and Environmental Studies. She is the recipient of an honorary PhD in Public Policy from the Kennedy College in Oakland, California.



Kevin Delano

Kevin is a geologist in State Water Board's Division of Water Rights. Since 2015, he has worked in the Instream Flow Unit on watershed modeling, public outreach, and long-term flow policy in the Ventura River watershed. Since 2020, he has also worked on the development and implementation of drought emergency regulations in the Scott and Shasta River watersheds, with a focus on helping landowners develop groundwater conservation plans. Kevin holds a MS in Geology from Central Washington University and a BS in Geology from UC Davis.



Brock Dolman

Brock co-founded the Occidental Arts & Ecology Center in 1994 where he co-directs the Permaculture and Wildlands programs and the WATER Institute. He is a wildlife biologist & watershed ecologist who has been actively promoting Bringing Back Beaver in California since the early 2000's. He co-authored two peer reviewed papers in the California Fish and Game Journal on the historic range of beaver in California: (<http://oaec.org/publications/the-historic-range-of-beaver-in-the-sierra-nevada-a-review-of-the-evidence/>) (<http://oaec.org/publications/historical-range-of-beaver-update/>). He was given Salmonid Restoration Federation's coveted Golden Pipe Award in 2012: "...for his leading role as a proponent of "working with beavers" to restore native habitat". In 1992 he completed his BA in Agro-Ecology & Conservation Biology, graduating with honors from the University of California Santa Cruz with the Biology Department and Environmental Studies Department.



Erik Ekdahl

Erik is the Deputy Director for the State Water Board's Division of Water Rights. The Division is responsible for establishing and maintaining a stable system of water rights to develop, conserve, and use the water resources of the State, while protecting vested rights, water quality, and the environment. Erik joined the State Water Board in 2008, where he focused on nitrate and groundwater contamination. He has worked in the Board's Division of Financial Assistance, Division of Water Quality, and as Director for the Board's Office of Research, Planning and Performance, which is responsible for developing and implementing the Board's requirements under the Sustainable Groundwater Management Act (SGMA). Erik is a licensed Engineering Geologist, with a Ph.D in Geology from the University of Michigan.



Charlotte Ely

Charlotte supervises the State Water Resources Control Board's conservation team, which will be leading the agency's efforts to implement SB 606 and AB 1668. From 2006 to 2016, she worked for the U.S. Environmental Protection Agency's Sustainable Water Infrastructure program, providing technical and financial support to increase water and energy efficiency in water, wastewater, and stormwater infrastructure. She lives in Sacramento with her husband and two daughters.



Tia Fleming

Tia is the Co-Executive Director at the California Water Efficiency Partnership. She's been fighting the good fight with environmental and water-focused non-profits and municipal organizations for over a decade managing communications, outreach, advocacy, facilitation, and coalition development. Before joining CalWEP, Tia worked with WaterNow Alliance, Imagine H2O and Food & Water Watch. She currently sits on the League of Provocateurs for Rogue Water Labs. WTF Blog: <https://calwep.org/framework-updates/>



David Fenster

David is a filmmaker based in Tucson, Arizona. His work links the cultural, historical, mystical and ecological. His films have screened at the Museum of Modern Art, Sundance Film Festival, New York Times, HBO, and several other museums, festivals and media outlets around the world. For more information visit: www.david-fenster.com



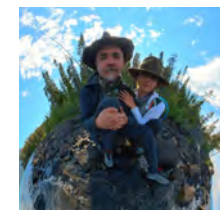
Chris Freimund

Chris is passionate about water conservation and community development. His career has focused on the connection between social and environmental well-being, developing and managing projects that include transboundary watershed management, flooding and public risk perception, climate change adaptation, education and health promotion, and environmental conservation and restoration. Chris holds a master's degree in Natural Resources from the University of Arizona's School of Natural Resources and the Environment. He served as a Peace Corps Volunteer in Guatemala from 2015-2017, working on community and environmental health projects. Chris completed his bachelor's in Spanish, minoring in International Development from the University of Montana in 2011. Chris joined Watershed Progressive in the Spring of 2021, where his work continues to focus on building collaborative efforts and programs to improve climate resilience and community well-being. When not at work, you can usually find Chris seeking refuge in the mountains with his family or enjoying a book by a river.



Ajay Goyal

Ajay is the Manager of the Statewide Infrastructure Investigations Branch at the Department of Water Resources. Over the past 30 years, he has worked on the planning, design, and construction of many large water resources projects. While at the Bay Delta Office, he served as the project manager for the Franks Tract Project, and the Delta Salmon Outmigration Study. For the past thirteen years, in the Division of Planning, he has been serving as the program manager for the Surface Storage Investigations Program, the System Reoperation Program, and the Flood-MAR Program. He also led the development of the Water Available for Groundwater Replenishment report. Currently, under the Flood-MAR Program, Mr. Goyal is leading the climate vulnerability analyses and adaptation planning for Merced River watershed, Stanislaus River watershed, Tuolumne River watershed, Calaveras River watershed, and the Upper San Joaquin River watershed. He is also leading the San Joaquin Valley Conveyance Study. Mr. Goyal holds a bachelor's degree in civil engineering and a master's degree in structural engineering. He is a licensed Civil and Structural Engineer.



David McConville

Dr. David McConville (he/him) is co-founder of Spherical, an integrative design studio based in xučyun (aka West Oakland). For the past 15 years, David has researched the potential of data visualizations to understand the interconnected dynamics of bioregions and watersheds. Spherical has partnered with Accelerate Resilience LA to develop engagement tools to help communities explore the multi-benefits of living infrastructure.

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Aaron Haimon

Aaron has been passionate about birds and nature since he can remember. He has a Bachelor's in Environmental Science from the University of California Berkeley and two master's degrees from the University of California, Davis, in Avian Science and Animal Behavior. He worked for the Department of Water Resources as a Scientific Aide, and for over five years as an Environmental Scientist for the Sacramento-San Joaquin Delta Conservancy. Currently, he is a Senior Environmental Scientist for the Wildlife Conservation Board where he manages the Stream Flow Enhancement Program, a statewide program that funds stream and river restoration projects.



Trathen Heckman

Trathen is a non-profit leader with over twenty years of experience cultivating grassroots groups and community networks. He is the founder and Director of Daily Acts Organization, which specializes in unleashing the power of community to address the climate crisis. He co-founded Climate Action Petaluma and is engaged in a range of sustainability and resilience-focused networks and alliances. Trathen helps people and groups reclaim the power of their actions to regenerate self, nature and community. He lives in the Petaluma River Watershed where he grows food, medicine and wonder while working to compost apathy and lack



Regina Hirsch

Regina is dedicated to bringing appropriate best management solutions for healthy, resilient communities, starting with common ground solutions in neighborhoods as well as at a watershed scale. After getting the watershed monitoring bug at the Central Coast Regional Water Quality Board and the Morro Bay National Estuary Program, she moved to the Sierra Nevada for a different approach to reaching people and assessing effectiveness of non-point source pollution treatments. Regina founded Watershed Progressive, a consulting/contracting firm which focuses on onsite water best management practices aimed at rehydrating watersheds for healthy, resilient communities. Since 2009, Watershed Progressive has helped incubate, model, design and install projects throughout California and the arid West, restoring habitat and aiming to increase watershed hydrologic recharge functionality through water conservation, infiltration, and reuse. Living up near Yosemite, Regina is an avid kayaker, backpacker, and in her spare time, an executive board member of various organizations, such as The Telele Foundation, California Onsite Water Association and founder of Localizing California Waters. Knowing that what people can do on their own land is what can make the difference, Regina spends most her time getting the good word on creative, easy to implement, collaborative water solutions.



Cora Kammeyer

Cora is a Senior Researcher at the Pacific Institute, a global nonprofit water research organization. There she works on corporate water stewardship, integrated water management, California water policy, global water governance, and more. Her current projects are focused on urban water efficiency for low-income housing in Los Angeles, onsite water reuse in Silicon Valley, sustainable landscapes in Southern California, and corporate water stewardship in California and the Colorado River Basin. In addition to her research at the Pacific Institute, Cora also teaches Water Policy at the Bren School at the University of California, Santa Barbara (UCSB).



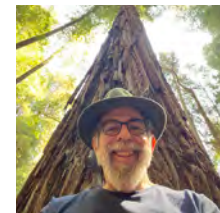
Dennis Hutson

Dennis is a retired United Methodist minister from the Desert Southwest Annual Conference of the United Methodist Church (the Phoenix area). He was brought out of retirement to serve the Armona and Lemoore First United Methodist Churches in June, 2020. Reverend Hutson served in various capacities throughout his ministry. His last ministerial appointment was as Senior Pastor of Advent United Methodist Church in Las Vegas, NV. He was commissioned a chaplain in 1985 and served as a Chaplain, Senior Protestant Chaplain, Installation Chaplain, Wing Chaplain and Deputy Director of the Chaplain Assignments Division of the Air Force Personnel Center, in the United States Air Force.



Brad Lancaster

Brad is the author of the award-winning Rainwater Harvesting for Drylands and Beyond and co-founder of DesertHarvesters.org. Since 1993 Brad has run a successful permaculture education, design, and consultation business focused on integrated regenerative approaches to landscape design, planning, and living. In the Sonoran Desert, with just 11 inches of annual rainfall, he and his brother harvest about 100,000 gallons of rainwater a year on an eighth-acre urban lot and adjoining right-of-way. This harvested water is then turned into living air conditioners of food-bearing shade trees, abundant gardens, and a thriving landscape incorporating wildlife habitat, beauty, medicinal plants, and more. The goal of his book series and overall work is to empower his clients and community to make positive change in their own lives and neighborhoods—by harvesting and enhancing free on-site resources such as water, sun, wind, shade, community, and more. It's catching on, as evidenced by tens of thousands of practitioners and demand for Brad's work around the world.



Andy Lipkis

Andy has spent his life crowdsourcing climate resilience, both coordinating flood emergency disaster relief and addressing long-term causes and vulnerabilities. At age 18, he founded TreePeople, and served as its president from 1973 to 2019. Lipkis is a pioneer of Urban and Community Forestry and Urban Watershed Management, the principles of which have spread across the world. He has consulted for Los Angeles, Seattle, Melbourne, Hong Kong, London and other megacities, helping plan for climate resilience and adaptation. With climate change impacts already creating a chronic emergency for cities around the world, Andy's work has demonstrated promising new ways for individuals, communities and government agencies to collaboratively reshape urban tree canopy, soil, and water infrastructure to save lives and grow a more livable future. After retiring from TreePeople in 2019, Andy launched Accelerate Resilience L.A. (ARLA), a fiscally sponsored project of Rockefeller Philanthropy Advisors) to inspire and enable people and local governments to equitably accelerate climate resilience in Los Angeles. In recognition of his lifetime's work, Andy was recognized by the Society of American Foresters and American Society of Landscape Architects ... bestowing him the honorary titles of Forester and Landscape Architect.



Art Ludwig

Art is always seeking the best leverage points for the systemic changes needed for the new climate era. He's known for innovative best practices, how-to books, and regulations for water efficiency, alternate supply, and reuse, as well as firestorm safety. In a keynote for the County Building Officials Association of California conference he introduced an integrated, quantitative analysis of top historic and emerging hazards attributable to the built environment. This data spotlights a key challenge for our era: the hazards that current regulations prevent are dwarfed by newer hazards that regulations do not yet address. Art is part of a team that recently got firestorm, earthquake, and climate-safe Monolithic Adobe accepted into the international building code.



Linda MacElwee

Linda joined the Mendocino Resource Conservation District in 2005. Since that time, she has filled roles as education and outreach coordinator, watershed coordinator, native plant specialist, and project manager. She has helped to develop both the soils and the water programs at MCRCD. Linda has worked for over thirty years in the world of organic farming/gardening, from growing out endangered species of crops in the desert Southwest, to advocating for and advising farmers in soil health and water use efficiency practices.



Lindsay Mattos

Lindsay is the District Manager for the Tuolumne County Resource Conservation District (TCRCD) and the Administrator for the Tuolumne-Stanislaus Integrated Regional Water Management Authority (TSIRWMA.) Lindsay joined TCRCD in 2010 after graduating from Cal Poly San Luis Obispo with a degree in Agriculture Business. TCRCD provides education, technical and financial assistance to residents within Tuolumne County to facilitate conservation and sustainable agriculture and is home to the Landowner Resiliency Program. In 2013, after helping to form the TSIRWMA Joint Powers Authority, Lindsay became the Administrator and continues to support the region in that role.



Mark Kenegos

As a GIS professional with a background in urban planning, Mark and his team do analyses and create visuals that allow for clear thinking on complex problems. He sees GIS as a tool for transcending the traditional boundaries of human-scale imagination. Mark's work experience has included environmental impact assessment, urban planning research, and active transportation safety planning.

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Dennis O'Connor

Mr. O'Connor recently retired as Chief Consultant to the California Senate Committee on Natural Resources and Water. In that role, he analyzed all proposed water and Delta related legislation, organized oversight and information hearings, prepared briefing papers on issues relating to water and Delta issues, and advised members of the Senate on California water policy issues. He played a significant role in a number of legislative efforts, including the 2007 package of flood legislation, the 2009 water package, the Sustainable Groundwater Management Act, and most recently the Making Conservation a California Way of Life legislation. He was with the Senate 19 years, beginning in January 2003. Before coming to the Senate, Mr. O'Connor spent 10 years at the California Research Bureau (CRB), serving for six of those years as the Assistant Director for the Environment and Natural Resources. Mr. O'Connor did his undergraduate and masters studies in economics at CSU Sacramento.



Hannah Ake

Hannah is a Senior Program Manager at the California Water Data Consortium and uses her background in hydrology, biology, and data science to solve interdisciplinary problems statewide, while furthering the Consortium's goal of using data and data stewardship to foster sustainable long-term water resource planning in California. Prior to joining the Consortium, Hannah worked as an Oceanographer and Senior Environmental Scientist for the State of California, where she led the Department of Parks and Recreation's Oceanography Research Program. There she managed multi-benefit natural resource programs that utilized open data to foster science based decision-making statewide. Hannah holds an MSc in Aquatic Resource Management from King's College London, and a bachelor's degree in Environmental Studies from the University of California, Santa Barbara.



Dominic Riolo

Dominic holds bachelors degrees in art and biological sciences from UCSB and a masters in landscape architecture from Harvard. He grew up immersed in the oceans of Southern California where his love and attachment to water was born. As a landscape designer, Dominic seeks to create places in which we can relearn the beautiful and life-giving qualities of water.



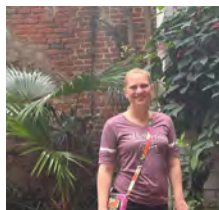
Andy Rogers

Andy specializes in managing water resource management programs for public agencies to implement initiatives supporting shared objectives including regional collaborations, studies, planning, outreach, grant funding and regulatory compliance. As a geologist and environmental scientist, Andy began his water-focused career conducting soil, groundwater, and surface water assessments, remediation, and monitoring projects on contaminated properties. Twenty years ago, Andy transitioned to supporting public water supply infrastructure and water resource development and watershed management programs. He has held numerous volunteer positions in the San Francisco Bay Area, and currently serves in three regional collaboration roles: Executive Director of the North Bay & Russian River Watershed Associations and Administrator for the Santa Rosa Plain Groundwater Sustainability Agency. Andy has a BA in Geology and Natural Science from New England College and is a Certified Professional in Sediment and Erosion Control.



Ryan Silsbee

Ryan is dedicated to encouraging the widespread adoption of sustainable and regenerative agricultural practices in today's food system. After years managing orchards and perennial crops in the Central Coast region, his focus turned to helping growers with climate and water resiliency. He is passionate about bringing best management practices to farms and orchards in critical watersheds and inspired by the growing interest to build resiliency into agricultural systems in California. Ryan's studies in Political Science and Economics for his B.A. at UC Berkeley and Agroecology for his Cert. in Ecological Horticulture from UC Santa Cruz have provided a good background for working at the crossroads of organic agriculture and water resource management. His work at Watershed Progressive includes water resource data analysis, evaluating best management practices for water efficiency, water resilience management plans, and regenerative land-use strategies. His favorite part of working at WP is helping to build relationships and communities around solutions and hopefully shaping future water resource management in agriculture.



Alyssa Persau

Alyssa has been a Project Manager at WCB since 2018. Prior to joining WCB, she worked at California State Parks as a Natural Resources Technician and volunteer coordinator, and at the Department of Fish and Wildlife, Inland Fisheries division as a Scientific Aid. Her experience includes coastal and riparian habitat restoration, water quality and stream flow monitoring, and salmonid surveys.



Shem Stygar

Shem is a Sr. Engineer in DWR's Water Use Efficiency Implementation Section and provides support for urban and agricultural water use efficiency projects. Over the past 14 years at DWR he has been involved in the planning of large-scale water resource projects including the Central Valley Flood Protection Plan, Water Available for Replenishment, and Flood-MAR programs. Recently, he worked on a talented team that developed, in coordination with stakeholders', recommendations on urban water use efficiency to the State Water Board required by the 2018 Water Conservation Legislation. In his free time he enjoys reading, modernizing his 1926 Spanish bungalow, and reveling in everything California offers.



Eric Tsai

Eric is a Supervising Engineer within the Strategic Planning Branch within the California Department of Water Resources and supports the California Water Plan. Previous to this position, he supported both the 2012 Central Valley Flood Protection Plan (CVFPP) and the 2017 CVFPP Update, including basin-wide feasibility studies in the Sacramento River Basin and San Joaquin River Basin. Before coming to DWR, he worked on a wide variety of water resources planning projects as an engineer with MWH Global, which is now Stantec. He holds a Bachelor's in Chemical Engineering from the University of Minnesota and a Master's in Environmental Engineering from Stanford University.



Julie Tumamait-Stenslie

Commissioner Julie Tumamait-Stenslie is the chairperson of the Barbareno /Ventureno Band of Mission Indians. Commissioner Tumamait-Stenslie is a respected elder, singer, storyteller, and Cultural Resource Consultant/Advisor. She is a member of the Board of Trustees for the Ojai Valley Historical Society and Museum, the Board of Trustees and California Indian Advisory Committee for the Santa Barbara Museum of Natural History, and the University of California at Santa Barbara's Committee on the "Repatriation" of Native American ceremonial artifacts. Commissioner Tumamait-Stenslie currently serves on the Ojai Valley Museum Board of Trustees as well as the Oakbrook Chumash Interpretative Center Board. She has served as a consultant for Chumash Cultural Services since 1985. Commissioner Tumamait-Stenslie is an artist that uses native materials to create her jewelry, musical instruments, and basketry. She continues to practice and teach her native language.



Ian Hunt

Ian joined the Headwaters Initiative Program in 2022, after moving from Cincinnati, Ohio. Ian's background is in social justice theatre and advocacy, especially focused on environmental and racial justice. He joined Watershed Progressive with hopes to fortify communities with water sustainability through earthworks and variegated irrigation systems. Learning from his past experiences at many nonprofits, Ian believes that community is one of the most influential steps to justice of any kind, and, in fighting for climate justice, creating a community of people with a passion and real relationship with the water that they use is a huge step forward. He aspires to grow in his knowledge and practical application of environmental science towards conservation, as well as get others involved in direct action.



Ryan Evans

In 2009, Ryan received his Permaculture Design Certificate at the Virgin Island Sustainable Farm Institute in St. Croix, USVI. It was there he cultivated his interest and passion for sustainable systems and integrated design. He now specializes in designing and installing rainwater, greywater, and stormwater catchment systems. It is his belief that the key to creating enduring communities lies in the responsible use and distribution of our most precious resource: water. In his spare time he pursues a variety of other passions which include rock climbing, rigging alarming highlines, and observing nature. He hopes to one day own property on which he could refine and develop sustainable systems of his own. In addition to working on his own homestead, he would like to eventually begin an education center which focuses on teaching all ages the concepts of ecological responsibility. In a nutshell, he enjoys both being in nature and sharing it with others.



Laura Feinstein

Laura is the Sustainability and Resilience Policy director at SPUR, the Bay Area public policy think tank. Laura leads SPUR's work on climate mitigation, adaptation, and environmental justice. She holds a B.A. from U.C. Berkeley in anthropology and a Ph.D. from U.C. Davis in ecology.

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Adam Zamastil

Adam is the Director of the Headwaters Initiative Program (HIP) which launched in 2021. HIP is a career development and mentoring experience intended to serve young adults from diverse backgrounds and life experiences to promote awareness and create pathways to meaningful careers for individuals seeking to get involved in climate related work and who face barriers and may not otherwise have access to such opportunities. Adam spent the previous 20 years with the California Conservation Corps and the National Park Service committed to conservation work and, youth mentorship, advocacy, and development. Adam hopes that the efforts of the Headwaters Initiative Program will bear fruit in creating career opportunities while continuing to promote advocacy and mentorship and forging lifelong connections with the ecological world for young adults.



Sean Bothwell

Sean directs California Coastkeeper Alliance (CCKA) initiatives to protect and enhance healthy inland and marine waters throughout the state for the benefit of Californians and California ecosystems. Sean is a national leader on critical environmental issues, including ocean desalination, California's trash policy, stormwater permitting and funding, and potable recycled water. He leads CCKA's legislative program by developing and introducing legislation and representing the Waterkeepers in Sacramento at legislative hearings and special committee panels. Prior to joining CCKA, Sean provided legal expertise to the San Francisco Bay Conservation and Development Commission (BCDC) in the development of the state's first sea level rise regulations. Sean holds a J.D. from Vermont Law School.



Dore Bietz

Dore (Northern and Southern Me-Wuk) resides on the Tuolumne Rancheria in Central California. After receiving a degree in Landscape Architecture, Ms. Bietz has worked for tribes specializing in realty, land use and environmental and natural resources protection for 25 years. As an enrolled member of the Tuolumne Band of Me-Wuk Indians and a former tribal council secretary, Dore understands the complexities of tribal governments and the need to foster better communication between tribes and outside agencies. Ms. Bietz currently works as the Planner and Emergency Manager for the Tuolumne Me-Wuk Tribal Council where she is involved in every aspect of community development, environmental and natural resources protection. Ms. Bietz also serves on the Cal Trans Native American Advisory Council, on the Governor's Tribal Task Force for FirstNet, Cal Fire's Native American Advisory Council, Tribal Team Chair for the CA Landscape Conservation Partnership and tribal rep to California Forest Management Task Force. She is also a recent graduate of the Water Solutions Network Cohort 2 Leadership Program. She participates with local government entities as a member of the Tuolumne County Transportation Advisory Committee, the Tuolumne County Drought Task Force, the Tuolumne County Tree Mortality Task Force, the Tuolumne County Public Health Emergency Coalition and the Tuolumne-Stanislaus Integrated Water Management Authority Watershed Advisory Committee.



Zaina Nasrallah

Zaina is committed to working on conservation and protection of natural resources. Being a part of a community that commits to providing clean and accessible water sources for everyone brings a great sense of joy. She is excited for the opportunities to engage with communities in education and projects, and especially watch our work help mitigate climate change and bring people together. Zaina has a bachelors degree in Environmental Sciences concentrating in Chemistry and Analysis. Her work on Mangrove forests in Umm Al Quwain, UAE was published in MDPI in 2020. She worked with the California Conservation Corps where her inspiration for restoration and watershed protection began before joining the WP Headwaters Initiative Program.



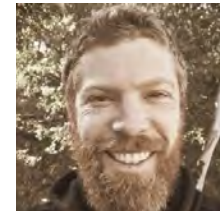
Graham Wesolowski

Graham, MESM sparked his passion in California's wild places as a young child through exploration of places Muir Woods, and the rugged coast north of Santa Cruz. He received his undergraduate degree in Environmental Studies from UC Santa Cruz in 2009 and his Master's in Environmental Science and Management from UC Santa Barbara's Bren School in 2015. He brings over a decade of practical experience in landscape management with expertise in habitat restoration, endangered species protection, open space conservation, working land management, and most recently planning landscape-scale climate resilience projects. He believes strongly in harmoniously blending the natural landscape with agriculture, and the built environment to create communities that are more resilient to all manners of societal and environmental change. When he is not helping communities to become more fire adapted, Graham is surfing somewhere along the Central Coast, or taking his kids to the Santa Barbara Zoo to see the lions.



Robert Wilkinson

Dr. Robert C. Wilkinson is Adjunct Professor at the Bren School of Environmental Science and Management, and Senior Lecturer Emeritus in the Environmental Studies Program, at the University of California, Santa Barbara. The focus of Dr. Wilkinson's teaching, research, and consulting is on water, energy, and climate policy. Dr. Wilkinson is a Senior Fellow with the California Council for Science and Technology. He co-chairs the U.S. Sustainable Water Resources Roundtable, advises government agencies, NGOs, and businesses in the US and abroad, and he serves on a number of advisory boards. Dr. Wilkinson served as coordinator for the California Region for the US Global Change Research Program and the White House Office of Science and Technology Policy for the first US climate assessment. In 1990, Dr. Wilkinson established and directed the Graduate Program in Environmental Science and Policy at the Central European University based in Budapest, Hungary.



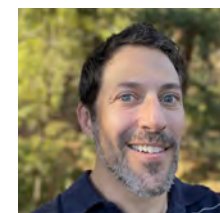
Eli Loughmiller

Eli joined the SWP team in November of 2017. He was born and raised in Tuolumne County, and currently resides in Twain Harte with his wife and three boys. Eli's career has spanned the fields of education, recreation, landscaping, and horticulture. Prior to his employment at Watershed Progressive, Eli was the owner of a retail garden supply company servicing Tuolumne and Calaveras County farmers, both hobbyist and commercial. As a father, homeowner, and lifetime resident of the Sierra Nevadas, he greatly appreciates the opportunity to help improve the health of our watershed. Eli has witnessed the fluctuations of our snowpack through his love of snowboarding, the health of our rivers and streams through hiking and fishing, and our diminishing groundwater levels through the local farmers he's worked with. He can think of no better focus for the future sustainability of the region than to work with Watershed Progressive to educate the community, mitigate stormwater damage, harvest rainwater, implement greywater systems, and repopulate our native plant species. His hope is that together, we can revise the development of this beautiful land, so that his children and all future generations, have the opportunity to experience all the activity and brilliance the Tuolumne and Stanislaus watersheds have to offer, from top to bottom.



Jami Wolf

Jami is originally from Minnesota where she was first introduced to the natural world. She observed how plants could adapt and thrive in cold harsh environments. She studied environmental studies at Eckerd College and began research on plant traits and as an ecological function. She focused on how plants communities can restore degraded habitat and maintain the health ecosystems at the Tampa Bay Aquatic Preserve. She first moved to California in 2009 and briefly focused on desert botany at Joshua Tree National Park. Frustrated with the limitations of federal bureaucracy, she moved to San Francisco and began focusing on environmentally sustainable business and ways to strengthen green economy. She is focused on learning the most efficient strategies to meet human demands for clean water, waste disposal, landscape, natural biodiversity and overall ecosystem health. She is passionate about educating those willing to learn, so everyone may go out and apply these strategies. Jami works in the field, designs systems and writes grants. In general helping to get these practices in the ground, where we can continue to research these techniques and improve our ecosystems.



Brian Epstein

Brian Epstein is a consulting hydrologist and the founder of Dihydrogen Oxide, llc. Over the course of his 20-year career, he has developed deep experience in water rights and water administration. Brian helps clients create operation plans, agreements, and petitions to transfer water to streamflow enhancement tailoring to on-the-ground conditions so projects are protected legally and can function physically. Brian is a recent arrival to California and is transferring wisdom gained from working in a state that required adjudication in 1919. Brian was in the Stream and Lake Protection Section during his 8 years with the Colorado Water Conservation Board. He helped review and shepherd recommendations for new instream flow (ISF) water rights or voluntary agreements to add ISF or transfer existing rights to ISF through the administrative and water court processes. He knows the challenge of water regulators from 3 years of first-hand experience as a Water Commissioner in the Colorado Division of Water Resources. Along with his public service experience, Brian started his career as a consultant and spent time as a research hydrologist. In addition to water rights, his experience includes study design, project management, groundwater modeling, and basin scale conceptual hydraulic modeling, groundwater modeling, environmental site assessment, field sample collection, discharge measurement, gauge site installation, multiparty negotiations, and as the lead liaison with other state and federal agencies. He received his Master of Science in Hydrogeology from the University of Nevada, Reno, and his Bachelor of Science in Environmental Natural Resources Policy Studies from Michigan State University.

LCW 2022 Conference Collective Notes

Taken on Flipcharts

What are you here for?

- There might be pie
- All of the stories that are here, to weave our stories together
- Inspiration/Renewal
- To be part of the solution
- Share, cross-pollinate, recharge energy, renewal, appreciate
- Spread awareness/inform
- Build relationships
- To be here, to be present
- To learn and share
- Community
- Recognize those that came before
- To correct/question our truth
- To be in community with each other
- To inspire us towards collective action
- To celebrate victories/each other's successes
- To protect our special places
- To be the voice for those without
- To re-write the conversation
- Partnerships- how to build effective collaborations
- Because of Regina

Mapping the Collaborative: Stories Capture from Around the State

How and what are you working on toward local approaches? Hear highlight stories from participants, and map them virtually, on the UN Global Compact Water Action Hub, together. This map will be used throughout the conference proceedings to capture stories and projects to the UN Global Compact Water Action Hub.

Cora Kammeyer, Pacific Institute

- LCW and the Water Action Hub:
 - We could add our organizations/agencies to the hub
 - Share projects and networks
 - Given that a lot of NGOs are involved- it would help to list incentives and funding streams
 - Find partners for ideas and projects that could potentially happen
 - The tool is very water focused- could we add other benefits?
 - Could this hold- incentives, policies, relevant programs?
 - What is the scale?
 - On the ground implementation projects related to water
 - Could this be used to find relevant case studies?
 - Users can add lessons learned
 - Case studies could be one of the biggest benefits for LCW
 - Could this help show aggregate impact?
 - Not currently, but projects can add photos, videos, etc.
 - Data- housed by UN, Pacific Institute is the technical lead

- ARLA tool- will help visualize projects- could be tied to the Hub and form coalitions

Water, Equity & Sense of Place

California's water affordability crisis is growing rapidly, exacerbated by local effects of climate change and most deeply impacting disadvantaged communities. How can we collaborate across communities to address these problems?

Kyle Jones, Community Water Center; Laura Feinstein, SPUR (San Francisco Bay Area Planning & Urban Research Association)

Moderator: Martha Davis, Mono Lake Committee

- Has increased privatization impacted price?
 - There has not been extensive increase of privatization
 - Federal subsidies are decreasing, meaning price is going up
 - Climate change is driving things
 - Private often is more expensive
 - Low water rates often mean less money for maintenance
 - Private makes profit off infrastructure investments- which tends to mean higher rates.
 - Public- dependent on people
- Bill numbers of programs-
 - SB 222- was vetoed last year but will come back with a new number
- Highlights the importance of water budgets to maximize benefits
- Renters- how can we reach them with rebates and incentives?
 - 1/3 of renters live in single family homes and pay the bills- which means the landlords don't have much incentive to pay for improvements
 - Need to require landlords to implement efficiencies through regulation and incentives both
- Who should we be asking to conserve water?
 - Efficiency is not just bringing down the bill but giving more access to choices
- Are there resources to get around prop 218?
 - League of cities has good examples to look into
 - There's also a number of lawsuits that are good case studies
- Nitrate pollution- does it diminish? Is it a legacy?
 - If we stopped now, it would still be a problem for years
 - Need to fund the right treatment
 - Need better systems for communities
 - Need to hold those responsible accountable

Shifting the Paradigm: Why & How We Need Storytelling Now

A Discussion with Leading Directors & Storytellers Emmett Brennan, 'Reflection' Film Director; Julie Tumamait-Stenslie, Barbareño/Ventureño Band of Mission Indians (Chumash); David Fenster, Arizona NPR; Kyndall Noah, Owens Valley Indian Water Commission Moderator; Trathen Heckman, Daily Acts

- Reach out and connect to the North Region and other regions
 - A lot of impactful work is happening in the northern region, for example, native fire/land management is working!
- How can we help build capacity for native storytelling?
- How to help the capacity of tribes to tell stories without being a “take” relationship?
- Need funds for indigenous knowledge

What resonated from Day 1?

- Film with Brad
- Morning mapping
- Storytelling session
 - We can’t decolonize
 - Even the plants have traces of colonization
- Storytelling- how can we incorporate stories in all the work that we do?

Accelerating Transformational Change: What if We Take Heart, Take Action?

The power in small, local actions adding up to regional transformation. Case studies for collaboration through local approaches, connecting to, and strengthening centralized approaches, while transforming wellness of individuals in our communities.

Trathen Heckman, Daily Acts & Author of Take Heart Take Action

- Tonight, is the full moon- today is a good day to let go
- It’s important to find our strength and find others to work with
- To contribute go to dailyacts.org

Watershed Resilience Frameworks: A Parcel to Watershed Approach

Overview of what Watershed Frameworks and approaches can do for optimizing and accelerating resilience and policies while accelerating collaborative watershed wide investments. A presentation of two example efforts and how they can be useful regional to statewide, and audience discussion of how these could be expanded, integrated and used with other models.

Eric Tsai, Department of Water Resources; Jamie Whiteford, Ventura County Resource Conservation District Moderator: Brian Epstein, Dihydroxide, Inc.

- How do you get project proponents to sign up for these actions?
- Funding is only one part of it
- IRWM- good example of trust building
- Relationships are what make a difference
- Can we get state agencies to not conflict with each other at the watershed level?
- Trust is critical
- Identity of lead agency is key- need to find the best lead to have trust in
- In what phase is the new DWR program at?
 - Tools and products are in draft. Aiming for 2023 release
- How can groups get involved?

Working Lands: Scaled for Impact

Can working lands offer the optimum landscape scale investment for climate change, particularly for local economies, habitat, water, and forest health? A diverse panel of hands-on community planners and hands-on doers discuss benefits, barriers and streamlining cross-purposes incentive programs of working land restoration for multiple benefits including community health, habitat, carbon sequestration, fiber, fire buffer and recovery, flood reduction and, of course water quality and quantity.

Linda MacElwee, Mendocino County Resource Conservation District; Rebecca Burgess, Fibershed; Simone Albuquerque, Marin Resource Conservation District; Johnathan Katz, Katz Farms Moderator: Lindsay Mattos, Tuolumne Resource Conservation District

- How can we engage working lands/agricultural sector?
 - Groups led by farmers/ranchers
 - Having funding available for projects
 - Coalition building, education/support for decision-making
 - Organize funding and markets for growers
 - Help with transition of agricultural lands

- Regulation and support= change
- Farmer to farmer approach
- How do we move from conservation to regeneration?
 - Lengthen timeframes
 - Solutions come from producers
 - Translating language from farmers to funders

Learning Together with Collaborative Data: Equal Access to Ecosystem & Opportunity Information Reiterative learning from real time data and opportunities analysis. This panel discusses how to transform community learning, create inclusive decision making, reduce barriers and streamline cross-purpose incentive programs of working land restoration for multiple benefits including community health, habitat, carbon sequestration, fiber, fire buffer and recovery, flood reduction and, of course water quality and quantity.

Kevin Delano, State Water Resources Conservation Board; Mark Kenegos, Watershed Progressive; Andy Lipkis, Accelerate Resilience Los Angeles; David McConville, Spherical Moderator; Hannah Ake, California Water Data Consortium

- How do all of these topics connect?
 - Data can help at different scales to provide resources and tools
 - These tools fill gaps that the others might need and complement each other
 - These tools can work from ground up and state down, which support each other
 - Sometimes toolboxes are limited so it's important to explore solutions from each other
 - A picture is worth a million words- this can improve environmental/water literacy
 - LA- had 20% more rainfall than average this year. There was plenty of water for its needs without importing from outside
 - We need tools to share this and translate into opportunities
- Tribal engagement- often tribal entities don't want to share their locations for privacy/sovereignty concerns. Security of location should be confidential and belong to those that participate
- Do LA candidates support this?
 - Candidates want to get elected and will embrace things if the people support it
- Industrial permits/commercial properties
 - Could these tools help support work on industrial areas?
 - Yes- there is a broad applicability for commercial and industrial owners as well
 - Costco parking lot is a good example of this
- We don't have enough people that can do this work
 - Permit in LA for rainwater harvesting is around \$2,000

- How can we train people to effectively design, bid, and install?
- If we can tell the story of how your actions all add up- we can get funding and share
- When the agencies don't work together- makes these projects infeasible
- Australia example- incentivized tanks to great success, we could do this too
- We have the tech- what we need is agencies to work together
- We need to grow the market- more affordable/accessible options
- Need workforce programs and certifications
- How can we sue opportunity analysis for general plans?
- Working to compile rebates- instant feedback in the programs
- SWRCD- doesn't regulate rainwater capture
- Permitting at local level
- State agency staff listen to public comments- reach out

The Beaver & Process-Based Restoration Revolution

Beaver led-design for healthy soils, habitat, and drought and fire resilience can lead to revolutions in our approach to how we live and interact with our places we need to protect, restore and revive.

Kate Lundquist & Brock Dolman, Occidental Arts & Ecology Center; Kevin Swift, Swift Water Design

- What actually attracts beavers? How do you design for that?
 - Adequate food sources
 - Year-round water
 - In their absence do it like Kevin
 - If you build it, they will come
- For ephemeral streams-
 - Hydroperiod is key
 - Ignore to the best of your ability property lines and fences
 - There are opportunities to have process-based work proportionate to the network
 - Work smaller to larger
 - No one knows where the limits are
- What time of year works best?
 - Coastal zone- work in months right before rain

- It depends where you are/hydro system and timing
- Depends on species present
- Problem is permits are built around large construction system and you're often stuck doing it in the fall when you should be doing it when there is water to see how things are going
- Water won't lie to you

The Hydrated Toolkit: Key Concepts for Shade, Food, & Community Health

Community-led design for healthy soils, habitat, and drought and fire resilience can lead to revolutions in our approach to how we live and interact with our places we live, work and play. Learn how local farms can act as community health drivers, and connect with community lead transformative assessments that connect to forest health, as well as rebuilding our communities and our thought process during fire recovery efforts in rural and urban areas.

Trina Cunningham, Maidu Summit Consortium; Dennis Hutson, Allensworth Farm; Aja Bulla Zamastil, Watershed Progressive Moderator; Regina Hirsch, Watershed Progressive

- How do you keep moving/going in this work?
 - If you are willing to put it forth, others will come and help
 - Redefine yourself and success
 - Surround yourself with others who can support you
 - Elders and those who have passed
 - Learn who you are and your self-discipline
 - Working with youth and being inspired by their vision
- Success stories and how to move forward
 - Awarded \$40M for community and \$500,000 for beginning farmer training, and \$300,000 for panning
 - Relationship with creator and earth and each other
 - Bringing together tribal summit and requesting budget for tribal capacity
 - Rebuilding relationship with land by owning land
 - Having strong partners
 - Partnering with youth design/install
 - Outreach with ARLA
 - Nothing beats a failure but a try

- Go small again if you get overwhelmed
- Connect with your heart

Mitigating Risk Through Resilience: New Concepts for Data, Communities, Working Lands & Habitats

A case study of a holistic approach to wildfire risk mitigation through synthesizing landscape, built environment, and community resilience. The Regional Wildfire Mitigation Program (RWMP)– is a novel, holistic approach to wildfire mitigation underway in coastal Santa Barbara County. This scalable framework focuses on using partnerships, scientific rigor and community input to develop solutions to wildfire risk that provide ecosystem and societal benefits equitably to wildland urban interface (WUI) communities.

Graham Wesolowski, SIG-Nal; Ryan Silsbee, Watershed Progressive

- Riparian area providing benefit- more hydrated less flammable
- To get more hydrated orchards- usually requires more multi-benefit projects and treatments
- Most orchards have had wildfire on their land
- How much hydration will stop a fire?
- Fuel load- less to burn on well-maintained orchard, we don't know an exact number
- Every species is different flammability
- Orchard managers would like a little recognition for fire practices/services
- One thing we did quantify was total water from potential opportunities
 - Amount of buffer space
 - Amount of sprinklers
- Vineyards- regenerate after a fire
- Celebrate unlikely partnerships of fire/agriculture
- Soil moisture might be a good indicator of flammability
- We never change by fighting existing reality- need a new model
- What constraints did you come across?
 - How do we do a lot quickly and monitor/quantity benefits?
 - Want to make sure we're reaching everyone
 - Water is complicated
 - CWPP can be outdated but have good community building aspects
 - Same with Fire Wise system

What resonated from Day 2?

- How do you remind people where their water comes from?
- Brock's talk- cool to see this work scaled
- Folly of putting static thing in something that will change
- The verb, not the noun
- Soil organic carbon- affects ET and quality of forage-self-fulfilling loop- root zone of plants is huge reservoir of water which is often not discussed
- L.A. as an example- local water supplies are the biggest source. Imported water is much more fragile
- Everything was so deep and wide
- Story of Allensworth- the voice that hit Dennis can hit all of us if we listen
- Actually seeing someone doing the on the ground work
- There is a lot that doesn't get done, because those that control the water can make more money

Innovations in Installation & Design for Fire, Forest Health, Safe Drinking Water, Food Resilience, Watershed & Community Health

Brent Buckman, Hyphae Designs

- The intimate link of equity, health, individual people, microclimates is incredibly important
- This conference needs more of this kind of conversation. Insightfully- how do we move forward?

The Policy | Planning Pathway

From Parcel to Watershed: Implementing the Governor's Water Supply Strategy

As California enters what may be its 4th year of drought, how can parcel scale actions -- from water efficiency to healthy soils -- help implement the Governor's Water Supply Strategy?

Eric Tsai, Dept. of Water Resources; Charlotte Ely, CA State Water Resources Control Board Moderator; Martha Davis, Mono Lake Committee

- Given the lack of information people have, how do we make numbers public and enforced for people?
 - It comes down to each urban retail suppliers- rates, rebates, fines, etc. they must reach the objectives and indicators
- How do people access these tools? How do we help agencies meet their objectives?

- DWR need to check if data will be publicly available
- Reports and comments are public
- Water objective exploration tool- can be found on google
- How do we navigate funding space? Will it be available for various entities?
 - As long as we argue that we're heading towards the goals it should work
- Small water cycle- ET, are agencies looking at this?
 - All budgets for outdoor use look at irrigable area, which could increase or decrease as landscapes are changed
 - Potable water used in those spaces should be more efficient
- Is there a parallel process for agriculture?
 - The current DWR strategy is for cities and towns
 - SGMA is meant to be the process for agriculture
 - For small farms in urban area- there is a coefficient in the equation available
- .5 MAF by 2030 seems very low. How can we raise the ambition level in these systems?
 - Represent, come engaged, come to meetings, and share stories and ideas

Intersections in Local Opportunities for SGMA, Water Agencies & Environmental/Public Health

Mapping white spaces and collaborative opportunities between water authorities and local jurisdictions is critical to planning meaningful actions. These mosaics of relations are confusing to water authorities, county efforts, and to local landowners. Hear and discuss with our panelists ideas to accelerate and incentivize local water approaches at scale while meeting needs of those who occupy the white spaces between.

Andy Rogers, Engineering Manager, West Yost; Rob Kostlivy, Stanislaus County Environmental Health Director Moderator: Tia Fleming, CA Water Efficiency Partnership

- What do we need to scale? What's worked?
 - Successful initiatives are the ones that have the most people involved
 - We need money for communications and staff time
 - Initiatives and networks are built but need funds
- What advice do you have for revitalizing collaborations?
 - When in hell- keep going
 - We need to come up with talking points and common needs that we can all express/share
 - need to build our ability to get there

- Historic water rights- if it just goes to wall street, it won't benefit us.
 - How can we bring pressure to change the system of water rights?
 - Russian River- just made agreement among right holders to share rights in times of need
 - County water advisory groups- good place to start building trust and impact

Accelerate and Innovate Towards Collaborative Funding: Connect Regional Efforts to Optimize & Evaluate Success

Perspectives from the Pacific Institute and Sustainable Conservation on the California Water Action Collaborative (CWAC) - a consortium of companies and NGOs working together to catalyze innovative water projects in California.

Cora Kammeyer, Pacific Institute; Joe Choperena, Sustainable Conservation

- What is the best way to get funding through CWAC?
 - NGOs in CWAC are generally larger with more capacity
 - Bonneville environmental foundation- good funding link.
 - There is an allies membership category- which is a good way to connect
- Is there any tribal engagement?
 - Not historically but it's moving that way
 - There were recent agricultural repurposing funds for tribes
 - Department of conservation- land repurposing program
 - Merced County also has a program
- How does nitrogen/manure work connect with TDS?
 - Unfortunately, salts can't be removed
 - Composting helps
 - CB Salts- is a group working on these issues

The Policy | Planning Pathway Big Ideas, Gaps, Themes

- There are lots of opportunities for engaging corporate entities
- Seems like the next challenge is efficiencies in funding
 - We have 2030 and 2040 goals- funding doesn't always match

- Agencies and entities feel disjointed
- How can we pool our resources to be most efficient?
- How do we change the mindset of individuals to want to use water efficiently for the benefit of others?
 - How do we better communicate?
 - How do we personalize- our actions make a difference
- Overarching need of investing in the capacity of networks and collaborations
- Problem is often in scale- not always looking at the primary problem of scale, which leads to an overdemand of our resources
- Need to make sure that land repurposing is done in a beneficial and responsible way
- Lots of planning is based on what's happened in the past- not the current speed of things
- There are lots of ways to creatively maintain the status-quo. We should talk about different ways of living, producing, etc. to live within our water budgets
- When we put in new systems, customers often ask, what else can I do?
 - Homeowners want to help and do the right thing
- Unplug/use less instead of a total shift
 - All EV by 2030, without considering effects
 - Undo, slow down, what is going out of control

The Installers | Designers Pathway | Innovation Stations

Big Picture Capture:

- Funding the entirety of the education/outreach/policy cycle
- Bottom-up approach to manual labor
- Incorporate educational pipeline from earliest point possible
- Create new license system for installers
- Concerns around ensuring quality and liability in greywater installation
- Democratizing licensure and professional pathways- let the market make the decision of what qualifications are needed
- Incentivizing entry into the workforce and monitoring/maintenance (Santa Monica is a model of this)
- Focusing on young people who intrinsically want to go into these fields
- Mandate maintenance in an un-burdensome way – questioning where the funding comes from.
- Go stateside with city code adoption

- Asking existing agencies to do more

Greywater:

- Water efficiency standard for GW- ready plumbing into code- need to lobby agencies for spring vote
- How to work with architects/builders- need outreach
- There are hurdles to educating plumbers/contractors- resistance to a 4-year apprenticeship plumber training
- Local inspectors need training and education
- Need sympathetic water agencies educating their own inspectors
- Rebates/incentives- should go through local water agencies
- Funding- should focus on low-income access
 - Mackenzie Scott?
 - Grants
 - Water districts

Rainwater:

- Come up with approved roof substrate
- Seismic regulation
- Subsidizing tanks
- New commercial development and ag- mandates for RWH
- Trainings for contractors and engineers
- How can we reduce costs to make this more affordable in lower income areas?
- Cost benefit analysis on city-wide scale
- New commercial development and ag- mandates for RWH
 - Government subsidies for tank production to reduce costs
 - All new agriculture and commercial development must have 100% rainwater capabilities before connection to municipal sources

Stormwater:

- Scale- urban constraints, BMPs for longevity, accurately estimate infiltration
- Public awareness needs to address misconceptions
- Barriers to permitting
- Aesthetics and traditional engineering
- Synergy with other tools, an integrated part of multi-benefits
 - Plants

- Play
- Rainwater tanks
- Opportunities for constraints for above and below ground
- Need accurate yearly infiltration- ability to estimate quantity
- Passive irrigation with stormwater

Blackwater:

- Rename to resource water
- Should separate by what is in the water (mineral content, nutrient content)
- Seeing problems as resources
- Dual plumbing- normalizing and incentivizing
- One robust system vs. many different- if blackwater systems require sizing that includes greywater flows- we should focus on one robust system instead of separate
- Measurable- look at what can and does grow in BW systems
- Scalping blackwater from sewer- commercial irrigation- use for irrigation and habitat

Irrigation:

- Longevity- leaks and upgrades
 - How do we incentivize systems that last longer
 - Flow meters- could conserve greatly in ag contexts
 - Incentivize tech upgrades and leak repairs
 - Rebates for smart timers and flow meters
- Plastics- how do we use less?
 - Manufacturing/engaging recycling
- Temporary irrigation- restoration
- Workforce training needed to address simple fixes and maintenance.
- Drip vs. spray for native plants?

Thermal:

- How to incentivize subsurface use?
- Combine with new build electrical and plumbing and sewer infrastructure- only dig once
 - Use the trenches already being built
- Trees-> surface cooling
- Solar shade over parking

Carbon/Soil Health:

- Everything comes back to soil health
- How do we educate and engage soil
- Soil health considerations in all projects
- More labs needed to measure soil health
- Infiltration, emission, reduction, retention
- Soil hubs: making conscious soil component
- Time- soil takes time
 - Other timeframes need to be commensurate with soil timelines
- Framings: speaking in ways communities understand
- Localized organic matter cycling
- Industrialized soil killing agriculture vs. localized life-promoting agriculture (regenerative)
- Promote biodiversity

Careerforce Development:

- Problems:
 - Awareness
 - Standardized trainings
 - Wages
- Solutions:
 - Change curriculum based on regenerative practices
 - From elementary school through university. Have education about careers, include demonstration projects, mentorship, etc.
 - Licenses: landscape architects, contractors are held to a standard
 - Certificates: show that they can demonstrate practices and principles
 - Certification for design, install, maintenance at high school, college, conservation corps etc. with regulations based on criteria
 - Holistic approaches- time maintenance, development, and economics together
 - Support for people already doing this work
 - Include courses for building businesses and co-ops for designers, installers, unions, etc.
 - Education and funding and outreach standardization
 - Starting in elementary school with mentorship, high school counselors should be provided with information for these types of careers and education needed
 - Tell our stories- to address stigmas for laborers
 - Grant writing should include line items for workforce/apprenticeships

- Hub Umbrellas-
 - AmeriCorps- corps network platform
 - Ecological workforce initiative- 12-hour curriculum
 - Planting justice- pilot project

Assessment:

- Better data and local land knowledge
- Funding that supports both
- Community member data collection
- Life cycle assessment- natural systems and processes first
- New framing of environmental design- waste as part of it?
- Having more granular zoning policies related to natural systems
- Network of elders- learn from local land knowledge

Beaver and Keystone Species:

- Interact/educate policy makers to make beavers a keystone species in CA
- Educate and incentivize creating conditions for beavers to thrive
- More pilot programs to demonstrate benefits and public test
- Eucalyptus and other invasive trees for beaver analogs
- Issue of urban constraints
- Natural predators? Could end up with too many beavers?

Pollinator and Plant community:

- Plant communities to support pollinators, pollinator corridors for connectivity
- Local seed banks
- Using parks and schools to develop long distance pollinator corridors
- Community gardens
- Youth outdoor programs
- Raingardens/rainwater collection
- Regenerative agriculture projects into urban communities
- Challenges
 - Pollinator corridors stretching long distances through private property
 - Planting plants in the wrong place (example: tropical milkweed)

- Education about how much and where to plant, where are we getting seeds
- Hydration in public parks
- Connecting communities to produce quality results
- Community involvement and inclusive accessible activities
- Next steps
 - Statewide programs/certifications
 - Merit system
 - Youth ambassadors
 - Skill development
 - Outreach and education
 - Statewide programs should be locally focused and incentivize best practices

Tree Health:

- More metrics for measuring tree health based on function
- Soil health- allowing leaf drops to stay and mulch
- Integrated pest management through natural processes
- Cultural burnings
- Local biomass reuse
- Consider water quality for irrigation

Little Water, Big Ideas: How Disaggregated Water Infrastructure is a Key Element in California Water Resilience

Erik Ekdahl, Deputy Director Division of Water Rights, State Water Resources Control Board

- How is the SWRCB thinking about water rights reform?
 - Board has very little ability
 - They can make information more easily available
 - Bigger questions need to be driven by a statute
 - We need to be able to move more quickly
 - Many rights have never been verified
 - Overlapping claims of rights
- CEQA- avoidance is preference. Ag is often exempt from mitigation

- What does it take to get an emergency proclamation?
 - There is currently one in all of CA
 - Really depends on the intent
- What would you say to places like San Diego that have an “even though the Colorado River is drying up, we’re still entitled to it mentality”?
 - Entitled only makes sense if there is water available
- Desalination- how does that fit in the proposed mitigation moving forward?
 - This has been controversial for a long time
 - Expensive, high GHG, etc.
 - USBR- has publicly said that 2-4 MAF of cutbacks on the Colorado river, so we will need more sources
 - So, desalination is on the table but will need to be regionally specific
- Is the SWRCB considering changes to pre-1914 rights system?
 - In a broad sense, no
 - Not to say we’re not working on it, but no clear process/guidelines.
- Metering water diversions?
 - Since 2016 people have been required to meter and measure diversions but there is no funding to manage/data
 - Can’t make sense of the data since there’s no system in place
- Does the state model population growth or carrying capacity?
 - It’s in water resilience portfolio
 - Projected 50 million people in the next couple decades
 - Not incorporated in models with water and climate
- Are dams a tool in the toolbox being considered?
 - They’re still frequently brought up
 - Prop 1- 2014 bond- money related to water storage included
 - There are proposals being considered, but they need to prove there is actually water to appropriate
- BeaverMAR- downstream water users removing beaver dams. Can we support them?
 - It should be a net zero impact on water. We’re happy to partner with CDFW if there’s interest

Abundance & Community Through Action

Brad Lancaster, Harvesting for DryLands

- What through line/theme has been carrying you?
 - People feel the truth- is there a truth to my understanding?
 - Is it correct? Do I need to re-learn?
- Education- finding and sharing the truth
- Seeing seeds grow
- How can I co-evolve with living systems that enable me to be here?
- What lures you where you haven't yet gone?

Grass Roots to Grass Tops: Transforming & Co-Building Resilient Communities Seasoned key local based authors, ecologists, analysts, and educators discuss where the arid west is at, and recommendation of where to go next.

Laura Allen, Greywater Action; Brad Lancaster, Harvesting for Drylands; Brock Dolman, Occidental Arts & Ecology Center; Art Ludwig, Oasis Designs, Trathen Heckman, Daily Acts; Andy Lipkis, Accelerate Resilience Los Angeles.

What is next? Where can we go?

- Shifting culture, codes, regulators, etc. takes time
 - Times of drought- larger society looks at water, which is a big opportunity but we don't all have capacity to meet the demand
 - Movement on larger cross-nation codes
- This is a long game- which can be frustrating
 - It's essential for everyone to strive for the change we need.
- When we get a new policy or standard- we're not done
 - How is it actually utilized in the world?
 - Tucson has new greywater ordinances but they're not enforcing it. Sort of a dead ordinance
 - How can we improve or make it more likely that codes will be enforced?
- How do we get people on board?
 - How do we create conditions conducive for life?
 - What is your niche service?
 - The whole is greater than the sum, but parts are isolated/fragmented
 - It's a get 'er done opportunity
 - Together we're better
- Great to feel like we're here with family
- Not about scarcity and time- except running out of town
 - We've been called

- Where am I needed? How can I help?
- Have with great enthusiasm and frustration
 - We know what needs to happen but often hands are tied
 - There aren't lots more than us, need to democratize knowledge
 - Been turned over to those with money
- Need to create tools that anyone can understand and open source
- Australian greeting- "how are your tanks?"
 - How are you doing/getting by?
 - Do you have enough/need some of mine?
- Maybe we don't have communitarian spirit but we can built it
- Integrating across silos
 - Climate and fire safe housing
 - Building codes
 - Natural building community- should have joint meetings with LCW
 - Plant safe detergent
- We need integrated and optimized climate response
 - Water budget based
 - Allocate costs to users with high demand
 - Water bill- also report rain and runoff
 - Fee-bates, credit for infiltrating runoff
 - Strong incentives for users
- Integration across housing, stormwater, nature based, transportation
 - Practical and appealing
 - All transport money to be reviewed by locals
 - Local plants
 - Stormwater irrigation
 - Shared autonomous electrical vehicles
 - Healthy is sexy- ride a bike
 - Regulatory efforts for greywater burning chemical cleaners
- Find and live your inspiration- start with your heart
 - How do you find your truth/voice in life and share
 - Core intrinsic human need

Key things that nurture networks:

- Bridging difference- embrace discomfort of where we're at
- Government Vs. NGO- social equity we have a lot of work to do
- Gathering to bridge networks
- Give feedback, give love, push us all
- Lots of work to do- white fragility
- Heal and do different
- Beyond allies to accomplice

Leading from an emergent future

- Shift culture, policy, and consciousness
- Need to prepare people who will be in positions of leaderships
- What keeps you alive, live in your joy, and do your best?

How are you feeling right now?

- Complete, rounded out experience
- Lifted
- Uplifted and inspired
- Recommitted, supported to take it deeper
- Feeling the wholeness
- Who is missing? Needs to be included
- Resilience force, TERA, movement generation
 - Transition is inevitable but justice is not
 - Move from me to we

The Nature Based Economy: Transforming and Co-Building Resilient Communities

A revolution intersecting fire, flood, drought, shade is coming through direct technical assistance and your community now. How do we track these incentives? How do we create local-based industry? This job revolution is comparable to solar industry sweeping California.

Meredith Hardy, California Conservation Corp; Adam Zamastil, Headwaters Initiative Partnership, Zaina Nasrallah, Watershed Progressive, Ian Hunt, Watershed Progressive

- Need to reach youth before angst turns to jaded
- Need to honor rights of passage and milestones for youth
- As much as possible- bring kids into your projects
- #slowwater- social media is a fast way to create movement
- Important not to tell all answers but invite youth to help find solutions that they want to find.
- Need worker owned trade school to include youth, women, LGBTQ+ communities
- Slack was wildly unsuccessful- how to stay in touch?
- Need to work in between- install, policy, etc.
- Need to amplify national community services program- gap year project

The Power of Visualizing Landscape Transformation & Storytelling: A Collaborative Messaging Workshop Capture

How do we engage our communities in taking immediate, and ecologically specific, action while thinking holistically about approaches, tools, and benefits to move towards regional climate resilience?

Aja Bulla Zamastil, Mari Beltran & Dominic Riolo, Watershed Progressive

- Segmentation work- what motivates a specific homeowner to take action?
 - They don't want to hear the word "job" or "drought"
- Segmentation data: motivators to make changes
 - When and how do they get motivated to make changes?
- "Wasting water is weird" video campaign
 - Something that shakes you up and makes you laugh
 - Strategic partnership with them- "enlivening" media
- Resonating with young people-
- Carbon farm plans as a way to think of what's coming next
 - A lot of media talks of greenhouse gas sequestration
 - But how do you physically put rocks in the gully to slow that water
 - How do we communicate so that people can do it on their own?
- Resources:

- Creating slow water chapters- look up the hashtag and markets/connects people work together
- We need science, laws, art, history, culture, spirit
 - There have been 1000s of years of occupation on this land
 - Ask permission of the people, trees, streams
 - Introduce yourself to the fish so that you're not afraid of them.
 - We're all related and we're stepping into their home
 - Bring in what the landscape looked like for indigenous people in this region
- People have to feel it in their heart to move to action
- Meeting people where they're at- listen and assess where they are
- Property value goes up- this is a motivator to get people to implement these projects
 - Re-scape- nonprofit people not wanting to transform their lawn for security reasons- keep in mind not to be "white savior" when entering these communities
 - When property value rises, gentrification happens, so anti-displacement measures need to be taken in tandem
- "I met more neighbors in a year of transforming my lawn than living here for decades"
- Medium is the message- people were about connecting so sharing stories to inspire people to meet their neighbors

Additional Photos



Additional Photos



Additional Photos



Additional Photos



Additional Photos



Additional Photos



Additional Photos

