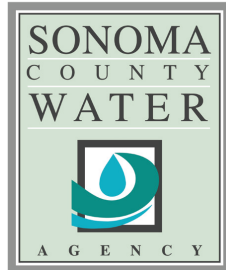


Thank you to our generous sponsors, who are helping to create a resilient Sonoma County.



SONOMA COUNTY ADAPTATION FORUM Resilience in a Changing Climate

Wednesday, April 8, 2015

8:00 am - 5:00 pm

Sonoma State University

Rohnert Park, CA

#climatechamps

FIND OUT MORE ABOUT CLIMATE ADAPTATION:
NORTH BAY CLIMATE ADAPTATION INITIATIVE

sonomacountyadaptation.org

sonomacountyadaptation.org

Keynote Speakers 2015

Susan Gorin, Chair, First District Supervisor, Board of Supervisors, Sonoma County



Supervisor Gorin represents the First District, which covers eastern Sonoma County. She is currently Chair of the Board of Supervisors. Ms. Gorin graduated from Sonoma State University in 1991, cum laude, with a degree in Political Science and Economics. In 1996 she was elected to the Santa Rosa School Board and was later elected and served as a six-year Santa Rosa City Council member and two years as Mayor.

Josh Fryday, Chief Operating Officer, NextGen Climate



Josh Fryday is currently the Chief Operating Officer (COO) for NextGen Climate, founded by Tom Steyer, a non-partisan organization focused on bringing climate change to the forefront of American politics by supporting those who will take bold action on climate change. Prior to this role, Fryday served as a Lieutenant in the United States Navy ('09-'13) as a member of the Judge Advocate General's Corps, and earlier as a political advisor and organizer on local, state and national campaigns, including the 2004 and 2008 Presidential elections. Josh received his law degree from the UC Berkeley School of Law, and clerked in the United States Attorney's Office for the Northern District of California as well as the San Francisco District Attorney's Office.

Dr. Glenda Humiston, State Director of California Rural Development, U.S. Department of Agriculture



Dr. Glenda Humiston was appointed California State Director of USDA Rural Development by President Obama. Her career includes policy development and program implementation supporting agricultural, environmental and economic development goals. She served from 1998 to 2001 as USDA Deputy Under Secretary for Natural Resources and earned her Ph.D. at UC Berkeley in 2009.

ABOUT OUR COLLABORATION

The Sonoma County Adaptation Forum is presented by an alliance of non-profits, agencies, and businesses working together to increase awareness of climate impacts to Sonoma County and strategies for climate resilience.

Along with our gracious sponsors, we are: the North Bay Climate Adaptation Initiative, RCPA, Sonoma County Water Agency, Sustainable SSU at Sonoma State University, County of Sonoma Energy & Sustainability Division, County of Sonoma Public Health Division, Brelje & Race Consulting Engineers, Leadership Institute for Ecology and the Economy, Local Government Commission, Sustainable North Bay and Sonoma Ecology Center.

Taking the lead on this event is the North Bay Climate Adaptation Initiative (NBCAI), a coalition of natural resource managers, policy makers and scientists who are committed to working together to create positive solutions to the problem of climate adaptation for the ecosystems and watersheds of Sonoma County. NBCAI members are experts and conservation leaders drawn from natural resource science and management organizations throughout the region.

Since climate adaptation is ultimately a regional issue, NBCAI aims to pilot an approach in Sonoma County that can be extended throughout the North Bay as a whole.

Community Foundation Sonoma County has been a true visionary to support the ground-breaking work of NBCAI. We appreciate their support and applaud their role in investing in the promise of Sonoma County.

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Program Schedule

- 8:00 am BREAKFAST AND REGISTRATION
- 8:30 am WELCOME
Suzanne Smith, MC. Executive Director, Regional Climate Protection Authority and Sonoma County Transportation Authority
Jake Mackenzie, Past Chair, Director, and Chair of the Local Government Commission, Councilmember, City of Rohnert Park
- 8:45 am STATE OF THE COUNTY
Climate Change Impacts, Vulnerabilities and Solutions in Sonoma County
Susan Gorin, Chairwoman, Sonoma County Board of Supervisors
- 9:05 am **Extreme Weather Science : Drought and Deluge in Sonoma County**
Scientific projections for Sonoma County tell us we can expect to prepare our communities for hotter days, less predictable rainfall and wilder weather. Join nationally acclaimed scientists to discuss local climate effects and how they impact our water supply, eco-system, and community during our morning's first session.
PANEL Moderator : Jay Jasperse, W.A. Chief Engineer/Director of Groundwater Management, Sonoma County Water Agency
Tim Doherty, Coastal Planner, NOAA Office for Coastal Management (Baldwin Group)
Dr. Marty Ralph, Director, Center for Western Weather and Water Extremes (CW3E) at Scripps Institution of Oceanography
Dr. Julie Kalansky, Researcher, CW3E at Scripps Institution of Oceanography
Dr. Lisa Micheli, Executive Director, Pepperwood Preserve, Co-founder of NBCAI and Co-founder of Terrestrial Biodiversity and Climate Change Collaboration (TBC3)
- 10:30 am NETWORKING BREAK
- 10:45 am **Adapting to Extremes : Managing the Risks of Climate Change in Sonoma County through Planning and Response** *Floods, heat waves, fires and disease - all in a day's work for our emergency services. However, when the "new normal" includes mega droughts, higher intensity deluges and the northerly migration of tropical disease, the question is how do we adapt to the "new normal"? By planning now so that we reduce our reliance on emergency systems and cultivate systems and practices for a resilient community.*

Panel Moderator : **Justin Witt**, Brelje & Race
Amy Lyle, Planner III, Sonoma County Permit & Resource Management Department
Brian Vaughn, Director, Health Services, Health Policy, Planning and Evaluation Division County of Sonoma
Chris Helgren, Sonoma County Emergency Management Division
Tom Jacobson, Director, Sonoma State University Sustainable Communities

PANEL 3 : THE ROLE OF AGRICULTURAL AND OPEN SPACE LANDS IN RESPONDING TO CLIMATE CHANGE

Karen Gaffney, Conservation Planning Manager, Sonoma County Agricultural Preservation and Open Space District

Karen Gaffney leads landscape scale initiatives related to watershed assessment, climate change and conservation prioritization. She grew up on a sheep ranch in Philo and her family farmed in Sonoma's Dry Creek Valley in the 1800s. A graduate of U.C. Berkeley, she has a Master's degree in biology from Sonoma State University, is a Switzer Environmental Leadership Fellow and is the principal author of local and regional guides to watershed assessment and ecological restoration.

Edward Thompson, Jr., California State Director, American Farmland Trust

Since 2003, Edward Thompson, Jr. has been California state director of American Farmland Trust, the nation's leading agricultural resource conservation organization. During his tenure at AFT, Thompson has been involved in nearly every aspect of farmland preservation. More recently, he has spearheaded innovative policy initiatives like California Agricultural Vision, the San Joaquin Valley Greenprint and the Bay Area Food & Farming Fund.

Valerie Minton, Program Director, Sonoma Resource Conservation District

At Sonoma RCD, Valerie leads the LandSmart® Planning program, promoting productive lands and thriving streams through on-farm conservation planning. Plans will soon include carbon sequestration and soil health elements, helping farmers reduce GHG emissions and adapt to a changing climate. Valerie also serves on the North Coast Regional Water Quality Control Board, and on Sonoma County's Climate Action 2020 Stakeholder Advisory Group.

John Green, Lead Scientist and Project Manager, Gold Ridge Resource Conservation District

John Green has over 15 years of experience in developing and implementing resource conservation and habitat protection projects. Since joining the Gold Ridge staff in 2009, he has taken a lead role in implementing water conservation and fish habitat enhancement projects, including oversight of Save Our Salmon, a multi-year program utilizing rainwater catchment projects as a strategy for enhancing instream flows in Salmon Creek.

IGNITE! PRESENTATIONS AND SUMMARY

Kate Meis, Executive Director, Local Government Commission

Kate Meis is the Executive Director of the Local Government Commission. Kate is a recognized leader in combatting climate change by advising on key state initiatives, helping to catalyze regional adaptation efforts (in Sacramento, Fresno and San Luis Obispo), and developing new statewide education and assistance programs including the first California Adaptation Forum, the California Statewide Energy Efficiency Collaborative and the CivicSpark AmeriCorps program.

To read about Ignite! speakers, go to: sonomacountyadaptation.org/climate/speaker/

WELCOME AND INTRODUCTION

Suzanne Smith, *Executive Director Sonoma County Transportation Authority, Regional Climate Protection Authority*

Suzanne Smith joined the Sonoma County Transportation Authority (SCTA) in October 1997 as the Executive Director. The SCTA is the countywide transportation agency responsible for coordinating regional, state and federal funding and administering Measure M, the local ¼ cent transportation sales tax. In 2010 the SCTA took on a new role as the Sonoma County Regional Climate Protection Authority (RCPA) and Suzanne serves as the Executive Director of that entity as well. The focus of the RCPA is to coordinate local activities, secure grants and strategically plan local efforts to reduce GHG emissions from all sectors.

Jake Mackenzie, *Councilmember, City of Rohnert Park*

Jake is a veteran elected official and environmental activist in Sonoma County. He is starting his 19th year on the Rohnert Park City Council having served as Mayor four times between 2001 and 2012. He currently chairs the NCRP and the LGC, is Chair of GA's Public Policy Committee, and serves on MTC, ABAG Exec Committee, JPC, SCTA (twice past chair) and SMART to name a few (acronyms supplied on request). Obviously he collects committee and board assignments as obsessively as he does police procedural novels and jazz records & books. Married to Barbara Mackenzie, Jake graduated from Edinburgh University (BSc Hons Crop Science) and Oregon State University (M.S. and Ph.D Weed Science) and after five years working in the Ag chemical industry spent 30 years as a pesticide regulator with U.S. EPA.

PANEL 1 • EXTREME WEATHER SCIENCE: DROUGHT AND DELUGE IN SONOMA COUNTY

Jay Jasperse, *Chief Engineer & Director of Groundwater Management Sonoma County Water Agency*

Mr. Jasperse received a Bachelor of Science degree in Geology from U.C. Davis and a Master's degree in Civil Engineering from the U.C. Berkeley. Prior to joining the Water Agency, he worked as an environmental engineering consultant specializing in groundwater resource characterization and remediation. He is responsible for the Water Agency's capital projects program and resource planning and management activities. Mr. Jasperse has been a member of NATO and NSF delegations in Egypt and South Korea, respectively. He has authored journal articles and book chapters on surface water-groundwater interactions, natural filtration processes, riverbank filtration, and integrated water resource management.

Tim Doherty, *Coastal Planner, NOAA Office for Coastal Management (Baldwin Group)*

Tim Doherty graduated from UC Santa Barbara with a B.S. in Biology. After graduation, Tim served for two years as a Peace Corps Volunteer in Honduras from 1998-2000. Upon returning, he joined the National Park Service as a biologist in the Golden Gate National Recreation Area. He received his M.S. from U.C. Berkeley's

Panelists 2015

College of Natural Resources and spent six years as a planner with the San Francisco Bay Conservation and Development Commission. He has been with the NOAA Office for Coastal Management since the summer of 2012.

Dr. Marty Ralph, *Research Meteorologist and Director, Center for Western Weather and Water Extremes, Scripps Institution of Oceanography, UCSD*

Dr. F. Martin Ralph focuses on understanding the physical processes that create extremes in precipitation ranging from flood to drought, and on advancing associated observations, predictions, climate projections and decision support tools. A primary topic has been atmospheric rivers and their role in precipitation. From 2001-2013 he was Chief of the Water Cycle Branch at NOAA's Earth System Research Laboratory. He also managed NOAA's Science, Technology and Infusion Program, chaired NOAA's U.S. Weather Research Program Executive Committee, and led the creation of NOAA's Unmanned Aircraft Systems Program. In 2013 he moved to the U.C. San Diego/Scripps Institution of Oceanography where he is Director of the Center for Western Weather and Water Extremes (CW3E). Dr. Ralph has published over 75 peer-reviewed scientific articles and championed the establishment of testbeds as a method to accelerate the development and infusion of new science and technology into weather and climate forecasting operations.

Dr. Julie Kalansky, *Researcher, Center for Western Weather & Water Extremes Scripps Institute of Oceanography, UCSD*

Julie Kalansky received her Ph.D. from Rutgers University in Oceanography with a focus on Climate Science. Currently, as a researcher for CW3E, she has taken a leading role in the California's National Integrated Drought Information System (NIDIS) projects. In particular, Julie wants to understand the scientific needs of stakeholders to help them better prepare for and mitigate the effects of drought. This will then help guide her and her colleagues' research towards information that is actionable and can influence decisions and policies.

Dr. Lisa Micheli, *Executive Director, Pepperwood Preserve*

Dr. Micheli has over 25 years experience applying her technical, policy, and fundraising expertise to the design and implementation of ecological restoration, research and education programs. She completed her graduate studies at U.C. Berkeley as a NASA Earth Systems Research Fellow in 2000 and now focuses her research on relationships between watershed health and biodiversity. She is the co-chair of the Terrestrial Biodiversity Climate Change collaborative (TBC3), a Gordon and Betty Moore Foundation Bay Area climate adaptation research initiative. She joined Sonoma County's Pepperwood Foundation in October 2009 as its Executive Director.

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PANEL 2 • ADAPTING TO EXTREMES: MANAGING THE RISKS OF CLIMATE CHANGE IN SONOMA COUNTY THROUGH PLANNING AND RESPONSE

Justin Witt, *Environmental Planner, Brelje & Race Consulting Engineers*

Justin joined Brelje & Race in 1999 as the firm's environmental planner. He conducts CEQA compliance and planning for water, wastewater and school projects. Justin has a B.A. in Anthropology and M.A. in Natural Resource Management and Environmental Planning from SFSU. He understands the effort required to plan, review, permit and implement infrastructure projects and the need for resilience in a changing climate.

Amy Lyle, *Planner III, Comprehensive Planning, Permit and Resource Management Department, County of Sonoma*

Her work includes healthy communities planning, overseeing the Countywide Climate Action Plan, Aggregate Resources Management program, transportation planning (including bicycle and pedestrian), specific plan development, water conservation policy, tribal relations, and was a team member for the General Plan 2020 update. She holds B.A.s in Environmental Studies & Planning and Political Science from Sonoma State University.

Brian Vaughn, *Director of Health Services Health Policy, Planning and Evaluation Division (HPPE), County of Sonoma*

Brian Vaughn leads the County in developing and implementing strategies and policies to achieve Sonoma County's goal of being the healthiest county in the state. This is accomplished in HPPE through the Health Action collaborative and its Cradle To Career initiative. HPPE spearheaded outreach of A Portrait of Sonoma County and is currently using the report to address key recommendations to target disparities, including developing plans for high-quality preschool across Sonoma County, strengthening tobacco policies, and place-based strategies in priority geographic areas highlighted in the report.

Christopher Helgren, *Emergency Manager, County of Sonoma Fire & Emergency Services*

Christopher Helgren has worked in the Fire & Emergency Services Department for the County of Sonoma for 15 years and served as Emergency Manager since 2011. His division manages the Homeland Security, Emergency Management and Urban Area Securities Initiative grants, maintains the County/Operational Area Emergency Operations Center, manages a 135-member Auxiliary Communications Service volunteer program and coordinates emergency management activities with the cities in Sonoma County and Cal OES.

Thomas Jacobson, *J.D., MCP, FAICP, Professor of Environmental Studies & Planning and Director of the Center for Sustainable Communities, Sonoma State University*

Tom Jacobson is Professor of Environmental Studies & Planning and Director of the Center for Sustainable Communities at Sonoma State University. Among his publications, he was principal author of Healthy by Design: A Public Health and Land Use Planning Workbook, co-author of Exactions and Impact Fees in California, and wrote the chapters on "Growth Management" and "Aesthetic Regulation and Design Review" in California Land Use Practice.

12:00 pm **Ignite! short presentations on real, working solutions for responding to climate change**

Moderator : **Jake Mackenzie**

John Nagle, *E&J Gallo Winery*

Richard Ingram, *Brelje & Race Consulting Engineers*

Caitlin Cornwall, *Sonoma Ecology Center & NBCAI*

12:30 pm NETWORKING LUNCH

1:30 pm Welcome and Overview of Sustainability at Sonoma State University **Andrew Rogerson**, *Provost and Vice President of Academic Affairs*

1:35 pm Moving the needle: changing the conversation about climate change **Josh Fryday**, *COO of Next Generation*

2:00 pm **The Role of Agricultural and Open Space Lands in Responding to Climate Change** *Deforestation and land use change contribute to approximately 17% of global GHG emissions, while GHG emissions from urban land uses are – on average - 58 times greater than those from agriculture. Although agriculture contributes emissions which vary widely due to crop type and on-farm practices, agricultural lands are – at the same time - critically important for sequestering carbon, and for climate resiliency.*

Moderator : **Karen Gaffney**, *Sonoma County Agricultural Preservation and Open Space District*

Ed Thompson, *California Director, American Farmland Trust*

Valerie Minton, *Sonoma Resource Conservation District*

John Greene, *Gold Ridge Resource Conservation District*

3:00 pm Networking break

3:15 pm **Ignite! Short presentations on real, working solutions for responding to climate change**

Moderator : **Jake MacKenzie**

Ann Hancock, *Center for Climate Protection*

Dan Swezey, *Bodega lab, UC Davis field station*

Paolo Tantarelli, *Community Soil Foundation*

David Morrell, *Sonoma Ecology Center/Sonoma Biochar Initiative*

Jonathan Bravo, *LandPaths*

Trathen Heckman, *Daily Acts*

Summary : **Kate Meis**, *Executive Director, Local Government Commission*

4:15 pm Introduction by **James Gore**, *Fourth District Supervisor, Sonoma County*

Closing Keynote Speaker : *Fostering Resilience in Sonoma County*
Dr. Glenda Humiston, *State Director, California Rural Development, US Department of Agriculture*

5:00 pm WINE TASTING RECEPTION

NOTES

welcome

Climate change may be the biggest challenge of our time. Here in Sonoma County, it puts at risk our people, our agricultural and tourism, our water and built infrastructure, and the open spaces we treasure. We must act decisively and urgently to safeguard the safety, prosperity, and quality of life for our communities.

The Sonoma County Adaptation Forum is presented by an alliance of non-profits, agencies, and businesses working together to increase awareness of climate impacts to Sonoma County and highlight creative strategies for climate resilience.

We're excited about this opportunity to work collaboratively and across sectors to build a shared sense of urgency. Today we bring together leading Sonoma County change agents and thought leaders so we can remind ourselves to strengthen our alliances and work in concert to address the issues at hand.

More importantly, we are committed to supporting on-the-ground solutions through exchanging examples, case studies, strategies, tools and lessons learned about incorporating climate change adaptation into your own thinking.

To ensure our forward momentum, today's forum will be followed by an intensive day-long work session to create a roadmap for climate resilience in Sonoma County by connecting the dots between what's needed, what we have in place and what's missing, and what each of us can do. While we have limited seating, please let us know if you would like to be included on the waiting list!

Thank you for taking the time to join with us today as we build our shared path to a thriving future.

Sincerely,
Sonoma County Adaptation Forum Planning Committee

- BC Capps, County of Sonoma Energy & Sustainability Division
- Lauren Casey, Regional Climate Protection Authority
- Caitlin Cornwall, Sonoma Ecology Center
- Grant Davis, Sonoma County Water Agency
- Paul Draper, Sonoma State University
- Ann DuBay, Sonoma County Water Agency
- Susan Haydon, Sonoma County Water Agency
- Jake Mackenzie, Local Government Commission and Rohnert Park City Council
- Kate Meis, Local Government Commission
- Lisa Micheli, Pepperwood and Dwight Center for Conservation Science, TBC3
- Tanya Narath, Leadership Institute for Ecology & the Economy
- Jen Lewis, Sonoma County Department of Health Services
- Barbara Oldershaw, Step Into Sustainability
- Kif Scheuer, Local Government Commission
- Adriana Stagnaro, Gold Ridge Resource Conservation District
- Genevieve Taylor, Global Genesis
- Justin Witt, Brelje & Race Civil Engineering
- Oren Wool, Sustainable North Bay

With appreciation to the North Bay Climate Adaptation Initiative (NBCAI) for their ongoing leadership in planning the forum; to the Community Foundation Sonoma County, for their generous and visionary support of NBCAI, and to the local Government Commission for leading the way with the State Adaptation Forum.