

2024

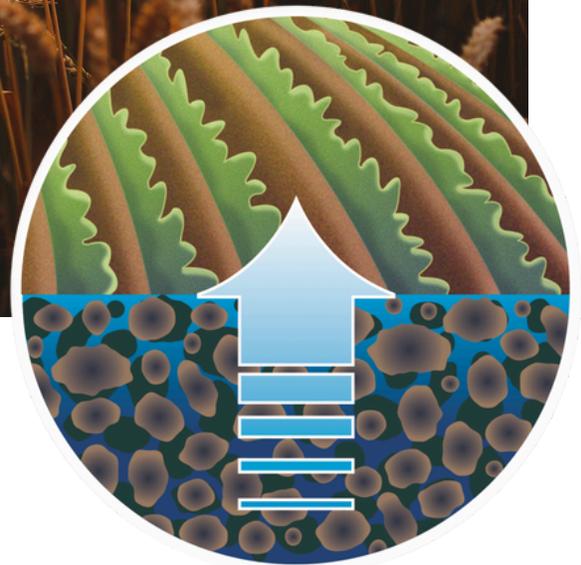
PROGRAM

TOWARD SUSTAINABLE GROUNDWATER IN AGRICULTURE

3rd International Conference Linking Science & Policy



June 17 - 20
San Francisco, CA



WELCOME!

Organized by:



WATER EDUCATION
FOUNDATION

UC DAVIS
UNIVERSITY OF CALIFORNIA

Groundwater is the lifeline for many rural and agricultural regions and their associated cultures and populations around the globe. In fact, groundwater is a cornerstone of global food production and constitutes nearly half the world's drinking water. The challenges of protecting this resource's quality and ensuring sufficient quantities are the focus of this conference.

Plenary Sessions

The four plenary sessions will highlight the importance of information sharing, management, policy and legal control of groundwater in agricultural regions, and assessment of agricultural practices and associated effects on groundwater quantity and quality. Experts from California, the U.S. and around the world will speak about the connection between groundwater supply and quality, rural livelihood, and agriculture/food production for local, regional and global communities.

Concurrent Tracks

Four tracks featuring a multitude of speakers – policymakers, researchers, water district managers, scientists, and others – will address a wide range of policy and technical presentations on such topics as irrigation and sustainability, salinity, nitrates, groundwater management, environmental justice, climate change, modeling and data and groundwater recharge. Be sure to visit our exhibitors: California Almonds, AgMonitor, Woodpecker Microsystems, Pumpsight, Lidco Inc. and Restore Hetch Hetchy!

Poster Sessions

Posters and our exhibitors will be showcased at a hosted reception from 5:30 p.m. until 7:30 p.m. on Tuesday and Wednesday. This is the perfect place to network with colleagues and learn about cutting-edge research and policy issues related to groundwater and agriculture.

Floor plan on page 16

PROGRAM COUNCIL

Executive Committee

Thomas Harter, University of California, Davis
David Rudolph, University of Waterloo, Canada
Jennifer Bowles, Water Education Foundation, California
Nick Gray, Water Education Foundation, California

Scientific Program Council

Aditi Mukherji, CGIAR
Amal Talbi, World Bank
Alvar Closas, formerly NSW Department of Planning, Industry and Environment, Australia
Bridget Scanlon, University of Texas Austin, USA
Chris Green, US Geological Survey, USA
David Lapen, Agriculture and Agri-Food Canada
Deb Perrone, University of California Santa Barbara, USA
Frank Wendland, Juelich Research Centre, Germany
Isaya Kisekka, University of California Davis, USA
Karen Villholth, formerly IWMI Africa & Denmark
Ken Belitz, US Geological Survey, USA
Lisa Porta, Montgomery & Associates, USA
Mallika Nocco, University of Wisconsin, USA
Maurice Hall, Environmental Defense Fund, USA
Pep Mas Pla, Universidad Girona, Spain
Richard Taylor, University College London, Great Britain
Sharon Megdal, University of Arizona, USA
Susanne Wuijts, Dutch Environmental Protection Agency, The Netherlands
Yoshihide Wada, King Abdullah University of Science and Technology, Saudi-Arabia

EVENT SUPPORTERS

Sponsors



Exhibitors

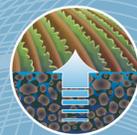
California Almonds
AgMonitor
Woodpecker Microsystems

Pumpsight
Lidco Inc.
Restore Hetch Hetchy

Cooperating Organizations

American Geophysical Union
American Society of Agricultural and Biological Engineers
UC Davis Agricultural Water Center
Groundwater Resources Association
International Association of Hydrogeologists

International Water Management Institute
National Groundwater Association
United States Geological Survey
The Water Institute



Pre-Conference Workshops

These optional workshops will serve as a platform for sharing experiences, tools, and insights from around the world and engaging in constructive discussions on each topic.

All-Day Session 9am - 12pm & 1:30 - 3pm

Implementing Groundwater Demand Management in Agricultural Regions

Led by Dr. Isaya Kisekka, University of California Davis

Morning Session 9am - 12pm

Regulating, Monitoring & Managing Groundwater Nitrate & Salinity

Led by Ken Miller, Formation Environmental USA

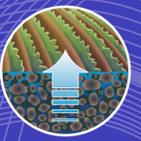
Afternoon Session 1:30 - 4:30pm

Tools & Strategies to Engage Stakeholders in Groundwater Management & Planning

Led by Dr. Jean-Daniel Rinaudo, BRGM France

Co-convener Dave Ceppos, Public Policy Facilitation and Mediation

***Conference registration
open from 3 - 6pm***



Welcome & Opening Remarks 8 – 8:30am | Regency Ballroom

Nick Gray, Water Education Foundation

Thomas Harter, University of California at Davis

Nancy Vogel, California Deputy Secretary for Water

Plenary Session: Success Stories 8:30 – 10am | Regency Ballroom

Conjunctive use of groundwater in the Gila River Indian Community
Governor Stephen Roe Lewis, Gila River Indian Community

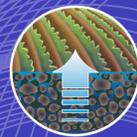
SGMA Success: The MAGSA Approach to Sustainability - The 'Half-Full' Glass
Matthew Hurley, McMullin Area GSA

Nitrate response in Danish groundwater to agricultural N management and regulation since 1940
Birgitte Hansen, Geological Survey of Denmark and Greenland - GEUS

Cultivating Change: A 4th Generation Kansas Farmer's Quest for Sustainability
Dwane Roth, Big D Farms Inc/Front Porch Farms

Moderator: Lisa Porta





10:30am - 12pm

2A Groundwater Dependent Ecosystems and Groundwater-Surface Water Interaction

Regency A Chair: Maurice Hall

Balancing Agriculture, Salmon, and Climate Change: Water Management in Scott Valley, California

Leland Scantlebury, UC Davis

A watershed-specific formula to predict coho salmon reproduction using river flow metrics

Claire Kouba, UC Davis

Climate Adaptation and Interconnected Surface Water and Groundwater Stewardship in the Napa Valley

Vicki Kretsinger Grabert, Luhdorff & Scalmanini Consulting Engineers

Balancing Groundwater for Agriculture and Lakes in Wisconsin, USA

Michael Fienen, USGS Upper Midwest WSC

Sustainable groundwater management in the Murray Darling Basin, Australia

Andrew Ross, Fenner School of Environment and Society, Australian National University

2B Best Practices for Groundwater Supply

Chair: Amal Talbi

Regency B

Combined, applied research & engagement frameworks to advance irrigation management

Amy Kremen, Irrigation Innovation

Almond Irrigation Improvement Continuum: A Model Grower Outreach Program

Michael Roots, Almond Board of California

Management of Ground Water Resources for sustainable agriculture in the Nadhour Aquifer/Tunisia

Manfred Matz, GIZ-Tunisie

Benefits from a Century of Groundwater Stewardship in Southern California

Betsy Miller, San Bernardino Valley Water Conservation District

Sustainable Agriculture in the SGMA Era

Ryan Flaherty, Sustainable Conservation

2C Environmental Justice

Chair: Alvar Closas

Regency C

SGMA and Underrepresented Farmers - Impact of Groundwater Sustainability Plans on Small Farmers

Ngodoo Atume, University of California, Agricultural and Natural Resources

Inequities in PFAS-Contaminated Pesticides Applied near Public Supply Wells in California, 2019-2021

Clare Pace, University of California, Berkeley

Quantifying Water Requirements for Small-Scale Diversified Farms in the San Joaquin Valley

Sara Qaderi, UCANR

Community-Engaged Research on Groundwater Nitrates: Perspectives from Rural Eastern Oregon

Anne Thebo, University of Washington
Climate Impacts Group; Kaleb Lay, Oregon Rural Action

Distributional implications of nitrate contamination in drinking water

Deshamithra Jayasekera, Daugherty Water for Food Global Institute

2D Advancing Sustainable Water Management through FloodMAR

Chair: Francisco Flores-López

Harbour A

Insights from the Merced Flood-MAR Reconnaissance Study (Moderator)

Francisco Flores-López, CA Department of Water Resources

Development of a Headwater-to-Groundwater Integrated Modeling Toolset

David Arrate, CA Department of Water Resources

Assessing Climate Vulnerability

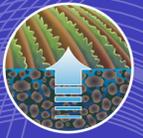
Wyatt Arnold, CA Department of Water Resources

Enhancing Climate Resilience through Adaptive Flood-MAR Strategies

Karandev Singh, CA Department of Water Resources

Setting a Template for Multi-Sector Coordination

Jim Wieking, CA Department of Water Resources



Lunch Keynote Address - Mark Arax, Author & Journalist

California: Where Wonder Meets Plunder

12:00 - 1:30pm | Grand Peninsula Ballroom

Introduction: Jenn Bowles, Water Education Foundation

1:30 - 3pm

3A Groundwater Quality Impacts from Agriculture Roundtable

Regency A

Moderator: Thomas Harter

Water use for irrigation changes quality of groundwater used for drinking water supply in California

Miranda Fram, U.S. Geological Survey

A Framework for Understanding & Addressing Surplus Manure Nitrogen on Dairies in the Central Valley

Till Angermann, Luhdorff and Scalmanini Consulting Engineers

USGS Monitoring of Groundwater/Surface-Water Interaction and Nutrients in the Illinois River Basin

David Lampe, U.S. Geological Survey

Prioritizing Drainage Basins for Nutrient Studies: Importance of Spatial Variability

Christopher Green, US Geological Survey

3C Groundwater Management: Data and Modeling Roundtable

Regency C

Moderator: Andrea Brookfield

Updates to Central Valley Hydrologic Model - a regional tool for Sustainable Groundwater Management

Claudia Faunt, USGS/CAWSC

Evaluating Hydrologic Responses to Agricultural Water Management in the Lower Arkansas River Basin

Salam Abbas, Colorado State University

The Pendulum Swings: California's Attempts to Find a Balance Between Fish/Feathers and Farms/Folks

Jeffrey Davids, Davids Engineering | California State University, Chico

Exploring Dynamics of Aquifers using Remote Sensing and Integrated Hydrologic Models

David Hyndman, University of Texas at Dallas

3B Groundwater Governance Roundtable

Regency B

Moderator: Ellen Hanak

Under pressure - the case of groundwater management in the Great Artesian Basin in NSW, Australia

Alvar Closas, Independent Consultant

Groundwater governance and the outlook for agriculture: A case study of Arizona

Sharon Megdal, The University of Arizona

Groundwater Governance Elements: Knowledge, Motivation, and Mechanisms

Ruth Meinzen-Dick, International Food Policy Research Institute

Assessment impact of intensification agricultural on groundwater resources in the Aquifer Massacre

Jeff Garcon, University Quisqueya

Agent-based modelling and decision-support for groundwater compliance and enforcement: BEACON

Cameron Holley, UNSW

3D AgMAR: Engaging Private Landowners Roundtable

Harbour A

Moderator: Daniel Mountjoy

(Moderator) Agricultural Managed Aquifer Recharge-AgMAR: Engaging private landowners in replenishing groundwater

Daniel Mountjoy, Sustainable Conservation

Directing Recharge to Achieve Groundwater Sustainability Outcomes: Integrated Modelling Tools for Flood-MAR Planning

Ali Taghavi, Woodard & Curran

Planning, managing and implementing AgMAR/FloodMAR as a water district

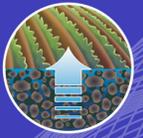
Wes Miller, Turlock Irrigation District

Doing the good deed: My AgMAR experience

Christine Gemperle, Grower

Preparing the grower (and everyone else) for AgMAR

Sarah Woolf, Grower, Waterwise Consulting



3:30 - 5pm

4A Best Practices to Improve Groundwater Quality

Regency A

Chair: Nandita Basu

Approaches to Groundwater Quality Management for Sustainable Rice Farming in California's Sacramento

Lisa Porta, Montgomery & Associates

Improving leaching estimates from orchards by accounting for tree size and soil spatial variability

Shahar Baram, Agricultural Research Organization (ARO), Neve Ya'ar Research Center

Using drainageways for subsurface nitrate processing in agricultural landscapes

Keith Schilling, University of Iowa

Collaborative engagement and involvement of private water well owners in BMP development

Hugh Simpson, University of Guelph

Impact of Cover Cropping on Nitrate Leaching from Potato Rotations

Yefang Jiang, Agriculture and Agri-food Canada

4C Groundwater Management: Data and Modeling

Regency C

Chair: Newsha Ajami

Quantifying Groundwater Recharge in Mountain-Valley Aquifer System of the Kaweah River Watershed

Hoori Ajami, University of California Riverside

Data-Driven, Field-Level Remotely Sensed ET in Critically Overdrafted Basins: 2022 & 2023 results

Joel Kimmelshue, Land IQ

A re-examination of the hydrological impact of tile drainage using integrated modelling tools

Jiangyue Ju, University of Waterloo

Aquifer Parameter Estimation: Async/Distributed Bio-inspired Algorithms with Convolutional Layers

Kiara Tesen Arambulo, Pontificia Universidad Católica de Chile

4B Climate Change Adaptation

Chair: Ken Belitz

Regency B

Assessment of Groundwater Droughts in the Colorado River Basin: Identifying Key Controlling Factors

Karem Abdelmohsen, Arizona State University

Flash Drought - A Growing Risk to Agriculture and Water Resources from Local to Global

Jeffrey Basara, University of Massachusetts Lowell

Sustainable Groundwater in Agriculture under a Changing Climate in Southwestern US

Isaya Kisekka, UC Davis

Distributed sensing for monitoring greenhouse gases from agricultural land under climate change

Tissa Illangasekare, Colorado School of Mines and Lawrence Berkeley National Laboratory

4D Managed Aquifer Recharge

Chair: Helen Dahlke

Harbour A

Evaluation of an Agricultural Recharge Site by Mapping Sediment Type with an Electromagnetic System

Meredith Goebel, Stanford University

Stormwater storage to support sustainable irrigation

Lea Augustin, Technical University of Munich

How to have your cake and eat it too; a case study of recharging with Reverse Tile Drains

Mike Busby, LIDCO Inc

Automated Cloud Based Groundwater Basin Storage Tracking for Managed Aquifer Recharge Accounting

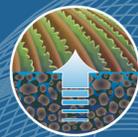
Mark Kram, Groundswell Technologies, LLC

Riverbank filtration, groundwater transfer and injection in an intensively cultivated alluvial basin

Andy O'Reilly, USDA-ARS

Hosted Reception & Poster Session 1

5:30 - 7:30pm | Harbour B



Plenary Session: North American Perspectives

8:30 – 10am | Regency Ballroom

Groundwater Depletion in Agricultural Supply Chains and Exports of the United States
Megan Konar, University of Illinois at Urbana-Champaign

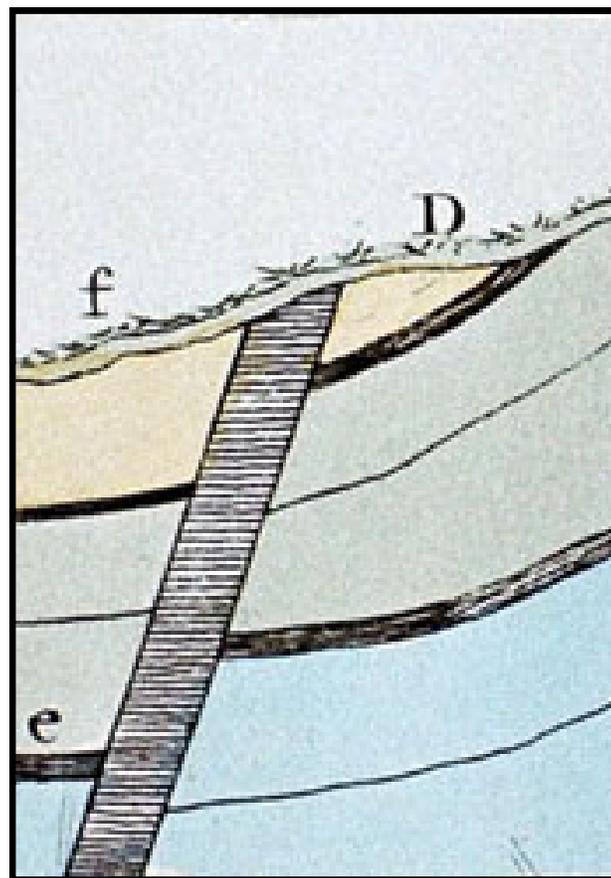
National Groundwater Quality in the Ag Space
Ken Belitz, U.S. Geological Survey

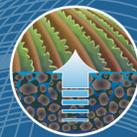
Agricultural-related trends in groundwater quality of the United States from 30 years of monitoring
Bruce Lindsey, U.S. Geological Survey

Managing Nitrogen and its Legacy in the US
Nandita Basu, University of Waterloo

Groundwater Perspectives from the Agricultural Investment and Banking Sector
Carl Evers, AGIS

Moderator: David Rudolph





10:30am - 12pm

6A Nitrate Monitoring and Modeling

Chair: Christopher Green

Regency A

Estimating the self-cleansing rate of local groundwater nitrate stock in a heterogeneous aquifer

Baibaswata Bhaduri, Indian Institute of Science

Occurrence, sources and fate of nitrate in agricultural regions of southern Alberta, Canada

Cynthia McClain, Alberta Biodiversity Monitoring Institute

Quantifying Germany-wide nitrogen fluxes for implementing water management policies

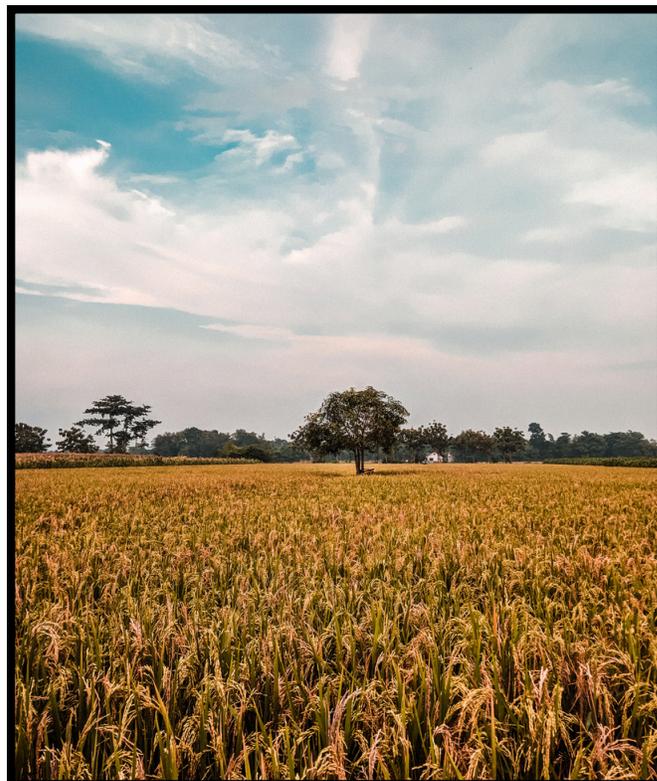
Tim Wolters, Forschungszentrum Jülich

Ambient Groundwater Monitoring Network: the Cornerstone to Reducing Nitrate in Drinking Water Wells

Melanie Redding, Washington State Department of Ecology

Data-driven approaches demonstrate legacy N accumulation in Upper Mississippi River Basin groundwater

Kim VanMeter



6C Groundwater Management: Data and Modeling

Chair: Giorgios Kourakos

Regency C

Groundwater Overexploitation in the North China Plain: A Path to Sustainability

Wolfgang Kinzelbach, ETH Zuerich, Emeritus

MODFLOW-IDC (MF-IDC) – A new tool for linking science and policy for water resources management

Reza Namvar, Woodard & Curran

A watershed modeling approach to quantify agricultural groundwater pumping at the national scale

Ryan Bailey, Colorado State University

Assessment of Agricultural Groundwater Extraction Through Combined Application of Time Series Analysis

Hwa-Lung Yu, National Taiwan University

6D Innovating Managed Aquifer Recharge

Chair: Yoshihide Wada

Harbour A

Helping Farmers Recharge Groundwater: Findings from the NRCS On-Farm Recharge Pilot Program

Aysha Massell, Sustainable Conservation

Water banking to increase water security and resilience to drought

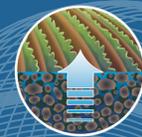
Andrew Ross, Australian National University

Navigating Water Rights To Implement On-Farm Recharge in Alexander Valley OFR Initiative

Philip Bachand, Bachand & Associates

Subsurface Groundwater Recharge: Reverse Tile Drains

Bryan Thoreson, GEI Consultants



Networking Lunch

12:00 - 1:30pm | Grand Peninsula Ballroom

1:30 - 3pm

7A Nitrate Policy Roundtable

Moderator: Lisa Porta

Regency A

Management Zone Implementation of California's Central Valley Nitrate Control Program

Barbara Dalgish, Luhdorff & Scalmanini Consulting Engineers

Policy Approaches in Managing Groundwater Nitrates: Implications for Oregon's Lower Umatilla Basin

Zach Kearl, UW Climate Impacts Group

Application of a Nitrate Decision Support Tool for groundwater wells in Wisconsin, USA

Christopher Green, USGS

Future of Salt Management in the California Central Valley: Prioritization and Optimization Study

Christian Petersen, GEI Consultants

Comparison of Agricultural Non-Point Source Pollution in China and the US: A Tale of Two River Basins

You-Kuan Zhang, Southern University of Science and Technology

7B Hydrogeology Academic Capacity Crisis Interactive Session

Facilitator: Ty Ferre

Regency B

You need technical staff. Let's find answers.

In this highly interactive 1.5 hour session, we will explain the reasons that it has become so difficult to find enough qualified entry level hydrogeologists.

Then we will work together to chart a course to solutions. Results of the discussions will be compiled and shared as part of a campaign to bring the entire hydrogeologic community together to address the acute and growing technical personnel shortage.

7C Groundwater Management and Policy Roundtable

Moderator: Karen Villholth

Regency C

The End of Cheap Groundwater? Global Impacts of Aquifer Depletion on Agriculture and Livelihoods

Sophie Erfurth, Morwick G360 Groundwater Institute

Groundwater Monitoring in Uzbekistan and Measures for Groundwater Protection

Aziz Hakimov, State Enterprise "Uzbekhydrogeology"

Building Groundwater Governance: Filling the Gap in the Global Water-Food Solution Set

Maurice Hall, Environmental Defense Fund

Vulnerability to changing land-use, water, and climate in agricultural landscapes: policy trade-offs

Nathan Van Schmidt, SFBBO

7D IAqMAR and Water Quality Roundtable

Moderator: Andy O'Reilly

Harbour A

Proposed water quality and hydrology management goals and approaches for the Aquaterra Water Bank

Philip Bachand, Bachand & Associates

The impact of agricultural managed aquifer recharge on the fate of pesticides in the vadose zone

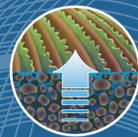
Helen Dahlke, University of California, Davis

Using cover crops to reduce nitrate leaching during on-farm recharge in diversified farming systems

Jessica Kanter, UC Cooperative Extension

Behavior of arsenic and uranium in the vadose zone during managed aquifer recharge

Kira Waldman, University of California Davis



3:30 – 5pm

8A Managing and Regulating Groundwater Quality

Regency A Chair: Vicky Kretsinger Grabert

Nitrogen legacies in groundwater – a persistent challenge in agricultural landscapes in Europe
Pia Ebeling, Helmholtz Centre for Environmental Research GmbH - UFZ

New Framework for Nitrate Control in California’s Central Valley Region Groundwater
Parry Klassen, Valley Water Collaborative, Executive Director

Addressing groundwater nitrate and salinity concerns in California’s Central Valley
Ken Miller, Formation Environmental

Managing pressures from agriculture on water quality: 30 years of monitoring in the Netherlands
Simon Buijs, RIVM - Dutch National Institute for Public Health and the Environment

8C Groundwater Management under Climate Change: Data and Modeling

Regency C Chair: Wolfgang Kinzelbach

Enhancing Coastal Aquifer Groundwater Model Accuracy via Climate-Responsive Boundary Conditions
Shubham Tiwari, IRPI CNR Italy

Evaluating the impacts of drought and human activities on Groundwater Dynamics for the 1952-2021
Adiam Weldemariam, New Mexico State University

Growing Season Trends in the CONUS and Relation to Changes in Irrigation Water Use from 1985-2015
P. Ruess, George Mason University

Lower Rio Grande Land Management Practices for Uncultivated Agricultural Fields under water scarcity
Manoj Shukla, New Mexico State University

8B Groundwater Demand Management to Achieve Sustainability

Regency B Chair: David Hyndman

Innovative Approaches and Incentives for Cost-Effective Demand Management in the Napa Valley
Duncan MacEwan, ERA Economics

Honoring Traditional Pathways to Advancing Agricultural Resource Management
Kathy Boomer, Foundation for Food & Agriculture

The impact of supply and demand management on groundwater overdraft for California’s Central Coast
Ruth Langridge, University of California, Santa Cruz

Developing Agricultural Groundwater Allocations for Better Water Management
Stephanie Anagnoson, Madera County

8D Global Perspectives on Groundwater Management

Harbour A Chair: Tim Parker

Centrality of Groundwater for resilient and sustainable agriculture in South Asia
Alok Sikka, International Water Management

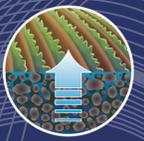
Forestry groundwater extraction in South Australia: Methodological recharge uncertainty
Okke Batelaan, National Centre for Groundwater Research and Training, Flinders University

Water Regulation and Compliance Archetypes: Insights from Australia
Darren Sinclair, University of Canberra

A Systematic Review on Global Managed Aquifer Recharge: Techniques, Impacts, and Future Implications
Berhanu Sinshaw, University of California Merced

Hosted Reception & Poster Session 2

5:30 – 7:30pm | Harbour B



Plenary Session: Global Engagement 8:30 – 10am | Regency Ballroom

Claudia Ringler, IFPRI/CGIAR

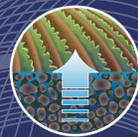
Karen Grothe Villholth, Water Cycle Innovation

Yoshihide Wada, King Abdullah University of Science and Technology

Wolfgang Kinzelbach, ETH Zuerich, Emeritus

Moderator: David Hyndman





10:30am - 12pm

10A Groundwater Governance: Participatory Approaches

Regency A Chair: Cameron Holley

Leveraging science for community-led groundwater management: Past experiences and policy integration

Alok Sikka, International Water Management Institute

Beyond the surface: exploring social challenges in groundwater community monitoring implementation

Jean-Daniel Rinaudo, BRGM

SGMA's Transformative Impact: Assessing Stakeholder Engagement in Groundwater Management

Jelena Jezdimirovic, UC Davis

Harnessing Science-based Collaborative Groundwater Management: Case Study of the Salinas Valley, CA

Abby Ostovar, Montgomery & Associates

10B Economic and Policy Challenges to Groundwater Management

Regency B Chair: Esha Zaveri

Policy Tools and Programs for Agricultural Ground Water Management in the American West

Ethan Orr, University of Arizona

The complex interplay of natural and socio-economic forces driving groundwater extraction in Taiwan

Shih-Yao Lee, Department of Bioenvironmental Systems Engineering, National Taiwan University

Groundwater Investment Assessment: A Novel Application of Modern Portfolio Theory in a CGE Framework

Angga Pradesha, IFPRI

Tradeoffs in the Design of Groundwater Conservation Policies

Mani Rouhi Rad, Texas A&M University

The Hydro-Economic well PERFORMANCE (HELPER) model: quantifying drought and overdraft impacts

Justin Thompson, Bureau of Economic Geology

10C Land Repurposing

Regency C Chair: Ryan Bailey

A strategic and inclusive approach to multibenefit land repurposing in California

Jose M. Rodriguez-Flores, Environmental Defense Fund

A Decade of Groundwater Retirement in the Walker River Basin: A Practical Perspective

Peter Stanton, Walker Basin Conservancy

Identifying Producer Perspectives on Repurposed Land Strategies in Kern County, California

Gracie Bartel, San Diego State University

Development and Implementation of a Land Repurposing Program in the Merced Subbasin

Christopher Heppner, EKI Environment & Water, Inc.

10D Global perspectives on Irrigation and Sustainability

Harbour A Chair: Isaya Kisekka

Model of Consumptive use for the Conterminous United States: Coupling Satellite-Sourced Estimates

Richard Niswonger, USGS

Developing Groundwater for Agricultural Irrigation in Niger

Alexandra Lutz, DRI

State and Prospects of Groundwater Use For Irrigation Needs in Ukraine

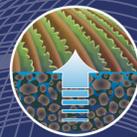
Boris Faybishenko, Lawrence Berkeley National Laboratory

Historical and projected groundwater use and depletion at global scales

Hugo Loaiciga, University of California / Santa Barbara

Networking Lunch

12:00 - 1:30pm | Grand Peninsula Ballroom



1:30 - 3pm

11A Groundwater Governance: Participatory Approaches Roundtable

Regency A

Moderator: *Jean-Daniel Rinaudo*

Beyond extraction: Co-constructing a shared vision of policy options for land subsidence control
Tailin Huang, Disaster Prevention Education Center, NCKU

Building Resilience to Climate Change Impacts through Community Engagement in Water Management

Andres Reyna, San Diego State University

The Great Artesian Basin: collaborative multi-jurisdictional governance and stakeholder engagement

Cameron Holley, UNSW

Fear, Loathing and the Heart of Uncertainty: Reframing the Conversation about Demand Management

Dave Ceppos, Public Policy Facilitation and Mediation

11C SGMA 10 Year Anniversary Roundtable

Regency C

Moderator: *Vicki Kretsinger Grabert*

Incentives and Strategies for Multi-Benefit Recharge: Lessons from California's Central Valley

Joseph Choperena, Sustainable Conservation

Working toward Sustainable Groundwater Resources in an Uncertain Future (Continued from June 2016)

Brian Lockwood, Pajaro Valley Water Management Agency

Agricultural Adaptation to SGMA Impacts in the New Water Risk Environment

Timothy Parker, Parker Groundwater

Ten years after SGMA - Accomplishments and the Road Ahead

Paul Gosselin, CA Department of Water Resources

Past, Present and Future of Groundwater Management in California

Allison Febbo, Westlands Water District

11B Economic and Policy Challenges to Groundwater Management Roundtable

Regency B

Moderator: *Sharon Megdal*

Assessing the Financial Feasibility of Developing Solar-powered Groundwater Irrigation in Nigeria
Hua Xie, International Food Policy Research Institute

An optimization model of agriculture in California's San Joaquin Valley to achieve multiple benefits

Yiqing Yao, UC Davis

Supporting Sustainable Water Management Decisions with Science

Andrea Brookfield, University of Waterloo

Groundwater Sustainability in California's San Joaquin Valley and Opportunities for Water Trading

Spencer Cole, Public Policy Institute of California

The Hidden Wealth of Nations: The Economics of Groundwater in Times of Climate Change

Esha Zaveri, The World Bank



PLENARY SESSION: ENGAGING AND MOVING FORWARD

3:30 - 5pm | Regency Ballroom

Alvar Closas, Independent consultant

Paul Gosselin, California Department of Water Resources, Head of SGMO

Thomas Harter, University of California at Davis

Sharon Megdal, The University of Arizona

Amal Talbi, The World Bank

Moderator: Ellen Hanak

POSTER SESSIONS

Tuesday 5:30 – 7:30 p.m.

Advancing the Groundwater Accounting Platform in California

Hannah Ake, California Water Data Consortium

Aquifer Recharge & Flow Dynamics: HYDRUS-1D & 3D Model Insights

Alberto Casillas-Trasvina, UC Davis

Groundwater sustainability in Massacre agricultural plain through hydrogeochemical characterization

Jeff Garcon, University Quisqueya

Estimation of Model Uncertainty in View of the Groundwater Sustainability Indicators

Giorgios Kourakos, UC Davis

Sustainable groundwater management across the urban-agricultural interface, Santa Clara County, CA

Jason Gurdak, Santa Clara Valley Water District

Assessing social learning from a participatory groundwater planning process (Adour, France)

Jean-Daniel Rinaudo, BRGM

Can Sentinel-2 Time Series Data be Predictive in Yield under High Salinity Conditions?

Mauricio Soriano, CSU Fresno

Wednesday 5:30 – 7:30 p.m.

Remote Sensing to Manage Crop Water Use and Needs

Erica Edwards, UC Davis

Analysis of Hydrological Modeling in the Lower Rio Grande using SWAT

Darby Kellum, NMSU

Assessing the Influence of Sunflower Farming on Nitrate Leaching into Groundwater

Felix Ogunmokun, UC Davis

Enhancing the accuracy of SEBAL-based Evapotranspiration Through Optimization and Data Assimilation

Ali K. Ghorbanpour, UC Davis

Increasing Managed Aquifer Recharge through Forecast-Informed Reservoir Operations

Bryan Thoreson, GEI Consultants

Towards a Coupled Hydrologic/Economic Model to Support Groundwater Irrigation Decisions

Boyao Tian, University of Waterloo

Strategic Multibenefit Land Repurposing for Groundwater Sustainability in the Turlock Subbasin

Alyssa DeVincentis, Formation Environmental

FLOOR PLAN

