CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

California Water Boards 6th Annual Water Data Science Symposium

Mono Lake, Photo Credit: Mick Haupt

Owens River, Photo Credit: Dane Deaner

Beyond Open Data: Radical Inclusivity for Water Data Equity

#CA WATER DATA DIVE

Agenda

California Water Boards

6th Annual California Water Data Science Symposium

Beyond Open Data: Radical Inclusivity for Water Data Equity

Monday, June 28, 2021

Paya: The Water Story of the Paiute

Film Screening & Panel Discussion

Please register to attend this film screening and panel discussion.

After registering, you will receive a confirmation email containing instructions on how to join the webinar.

Virtual Attendance for Non-registered Viewers: YouTube Live Stream

Time	Topic
3:45 - 4:00	Sign-on using information provided via your customized confirmation email
4:00 - 4:05	Welcome & Logistics *Greg Gearheart* *State Water Resources Control Board*
4:05 - 4:45	Film Screening *Paya: The Water Story of the Paiute*
4:45 - 5:30	Panel Discussion *Panelists: Teri Red Owl[1], Paul Huette[1,2], Monty Bengochia[1,3]* *Moderators: Kyndall Noah[1], Amanda Ford[4]* *(1) Owens Valley Indian Water Commission, (2) Big Pine Paiute Tribe of the Owens Valley, (3) Bishop Paiute Tribe Board Representative, (4) State Water Resources Control Board*

California Water Boards
6th Annual California Water Data Science Symposium
Beyond Open Data: Radical Inclusivity for Water Data Equity
Tuesday, June 29, 2021

Please register to attend this event. After registering, you will receive a confirmation email containing instructions on how to join the webinar.

Virtual Attendance for Non-registered Viewers: YouTube Live Stream

Plenary Session

Time	Topic
8:45 - 9:00	Sign-on using information provided via your customized confirmation email
9:00 - 9:05	Symposium and Webinar Logistics *Greg Gearheart* *State Water Resources Control Board*
9:05 - 9:20	Welcome *E. Joaquin Esquivel* *State Water Resources Control Board*
9:20 - 10:00	*Keynote Conversation* *Ebony Harper* *California TRANScends*
10:00 - 10:05	**Break**

Session 1: From Data to Insight
Examples of data visualization, exploration, and application

Time	Topic
10:05 - 10:25	Bay-Delta data sandbox: a web-based analytics and visualization environment for accessing and experimenting with integrated Bay-Delta data *Emily Richardson, Jeffrey A. Hansen, Jeniffer Soto Perez, Tom Bergamaschi, Brendan F. Wakefield, Brian Bergamaschi* *United States Geological Survey*

Time	Topic
10:25 - 10:45	DELVE: a cloud-based data management and visualization system for standardization, exploration, and collaboration *Mike Leech[1], Laura Nickelhoff[2]* *(1) Environmental Science Associates, (2) Sitka Technology Group*
10:45 - 10:55 *Lightning Talk*	Untangling the multi-variable microplastics toxicity issue with an interactive data exploration application *Scott Coffin[1], Leah Thornton Hampton[2]* *(1) State Water Resources Control Board, (2) Southern California Coastal Water Research Project*
10:55 - 11:15	Groundwater Quality Map *Hung Bui* *State Water Resources Control Board*
11:15 - 11:35	Advancing sustainable groundwater management with open-source technology: from vision to reality *Christina Babbitt[1], John Burns[2]* *(1) Environmental Defense Fund, (2) Sitka Technology Group*
11:35 - 11:55	gspdrywells.com: an open-source tool to estimate impacts to vulnerable wells and support gsp development *Rich Pauloo[1], Darcy Bostic[2], Amanda Monaco[3], Kaylon Hammond[3]* *(1) Water Data Lab, (2) Pacific Institute, (3) Leadership Counsel for Justice and Accountability*
11:55 - 12:30	**Lunch**

Session 2: From Insight to Action

Example tools that support data-driven decision making

Time	Topic
12:30 - 12:50	Unnatural water balance and biological beneficial uses: a data driven framework to support flow management decisions *Amanda Aprahamian[1], Aaron Poresky[2]* *(1) Orange County Public Works, (2) Geosyntec Consultants*

Time	Topic
12:50 - 1:10	Water budget development: putting data to work *Paul Shipman, Abdul Khan* *California Department of Water Resources*
1:10 - 1:30	OC stormwater tools: an open-source platform for stormwater asset inventory and performance modeling *Austin Orr[1], Eric Rademacher[2]* *(1) Geosyntec Consultants, (2) Orange County Public Works*
1:30 - 1:40 *Lightning Talk*	Waste discharge requirement data management: past, present, future *TJ Middlemis-Clark[1], Kristina Olmos[2], Stephanie Torres[3], Laurel Warddrip[3]* *(1) Lahontan Regional Water Quality Control Board, (2) Central Coast Regional Water Quality Control Board, (3) State Water Resources Control Board*
1:40 - 2:00	Open-source dashboards for operational control at wastewater facilities *Ryan Shepherd[1], Patrick McGrath[2]* *(1) Databrook LLC, (2) San Luis Obispo Water Resource and Reclamation Facility*
2:00 - 2:20	Beach water quality data in the County of San Diego and the future directions *Farnaz Farhang* *County of San Diego*
2:20 - 2:35	**Break**

Session 3: From Prediction to Protection

Using machine learning to improve California's water resources

Time	Topic
2:35 - 2:55	Identifying meaningful water quality parameters for resource constrained local government's data collection using large open access state datasets: a Clear Lake case study, Lake County, CA. *Liam Healey, Angela De Palma-Dow* *Lake County Water Resources Department*

Time	Topic
2:55 - 3:15	A day at the beach: enabling coastal water quality prediction with high-frequency sampling and data-driven models *Ryan T. Searcy, Dr. Alexandria Boehm* *Stanford University*
3:15 - 3:35	Leveraging big data to predict microplastics toxicity for aquatic organisms *Scott Coffin[1], Leah Thornton Hampton[2], Bart Koelmans[3], Merel Kooi[3], Win Cowger[4]* *(1) State Water Resources Control Board, (2) Southern California Coastal Water Research Project, (3) Wageningen University, Netherlands, (4) University of California, Riverside*
3:35 - 3:55	Detecting cigarette butts from an eye in the sky *Lorenzo Flores* *San Francisco Estuary Institute*
3:55 - 4:00	Daily wrap-up and adjourn *Greg Gearheart* *State Water Resources Control Board*

California Water Boards
6th Annual California Water Data Science Symposium
Beyond Open Data: Radical Inclusivity for Water Data Equity
Wednesday, June 30, 2021

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Virtual Attendance for Non-registered Viewers: YouTube Live Stream

Plenary Session

Time	Topic
8:45 - 9:00	Sign-on using information provided via your customized confirmation email
9:00 - 9:05	Welcome and Webinar Logistics *Greg Gearheart* *State Water Resources Control Board*

Session 1: California Chapter of the Society for Freshwater Science

Time	Topic
9:05 - 9:15	Introduction to Cal-SFS: the future of freshwater facilitated through Cal-SFS Fellowships *Angela De Palma-Dow[1], John Olson[2]* *(1) Cal-SFS Chair/President; County of Lake Water Resources, (2) Cal-SFS Treasurer; California State University, Monterey Bay*
9:15 - 9:30	What is a "natural" river? Understanding ecological opportunities and cultural values as flows decrease in Southern California urban rivers *Melissa von Mayrhauser* *University of California, Berkeley*
9:30 - 9:45	Ecological racism: seeking equity and justice via social and cultural competency *Robin López* *University of California, Berkeley*

Time	Topic
9:45 - 10:00	Thermal vulnerability in Sierra Nevada streams: spatial scales and drivers *Kyle Leathers* *University of California, Berkeley*
10:00 - 10:15	Using functional flows to establish flow criteria in California's South Fork Eel River watershed *Alyssa Obester* *California Department of Fish and Wildlife*
10:15 - 10:30	The Santa Ana River: opportunities from working in an extremely disturbed system *William Ota* *University of California, Riverside*
10:35 - 10:45	Cal-SFS follow-up and upcoming events *Angela De Palma-Dow* *Cal-SFS Chair/President; County of Lake Water Resources*
10:45 - 11:00	**Break**

Session 2: Using Data to Address Water and Racial Inequities

Time	Topic
11:00 - 11:05	Welcome, panelist introductions and panel objectives *Panel Moderator: Greg Gearheart* *State Water Resources Control Board*
11:05 - 11:35	Indigenous data sovereignty: how researchers can empower data governance *Lydia Jennings* *University of Arizona*

Time	Topic
11:35 - 12:40	Brief panelist presentations and panel discussion *Panelists: Anna Holder[1], Jaimie Huynh[2], Lydia Jennings[3], Tara Moran[4], Walker Wieland[5]* *Moderator: Greg Gearheart[1]* *(1) State Water Resources Control Board, (2) CalRecycle, (3) University of Arizona, (4) California Water Data Consortium, (5) California Office of Environmental Health Hazard Assessment*
12:40 - 12:50	Symposium wrap-up and upcoming events *Greg Gearheart* *State Water Resources Control Board*

Bay-Delta Data Sandbox Workshop

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Time	Topic
1:30 - 4:00	Bay-Delta data access: a how-to workshop for accessing and analyzing environmental data in the U.S. Geological Survey Bay-Delta Data Sandbox *Brendan F. Wakefield, Jeffrey A. Hansen, Emily Richardson, Jeniffer Soto Perez, Tom Bergamaschi, Brian Bergamaschi* *United States Geological Survey*