

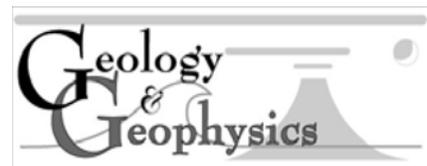
3rd Annual Joint Government Water Conference

**University of Hawaii – Campus Center Ballroom
Honolulu, Oahu
August 6, 2015**

8:00am - 3:45pm

“Implementing Hawaii Water Plans”

Sponsored by:



TENTATIVE AGENDA
2015 3rd Annual Joint Government Water Conference
“Implementing Hawaii Water Plans”
University of Hawaii, Campus Center Ballroom
August 6, 2015

7:30am	Registration	
8:15am	Opening Remarks and Introduction (Joanna Seto, Lenore Ohye, and Craig Glenn)	
8:30am	Speaker #1 - <u>Water Resources Protection Plan Update</u> , Jeremy Kimura, Commission on Water Resources Management, Hawaii Department of Land and Natural Resources	
9:00am	Speaker #2 - <u>Water Quality Plan Update</u> , Joanna Seto, P.E., Safe Drinking Water Branch, Hawaii Department of Health	
9:30am	Speaker #3 - <u>County Water Use & Development Plan Update</u> , Barry Usagawa, City & County of Honolulu, Honolulu Board of Water Supply	
10:00am	Break	
10:30am	Speaker #4 - <u>State Projects Plan Update</u> , Dennis Imada, Hawaii Department of Land and Natural Resources	
11:00am	Speaker #5 - <u>Funding Opportunities from Hawaii Energy for Water/Wastewater Facilities</u> , Kate Aurilio, Hawaii Energy	
11:45am	LUNCH (Lunch Speaker: <u>EPSCoR-Merging the Data Needs of State Agencies with that of the Scientific Community</u> , Gwen Jacobs, University of Hawaii.	
1:00-3:30pm	CONCURRENT SESSION A (Water/Wastewater)	CONCURRENT SESSION B (Water Protection)
1:00pm	Speaker #1: Water Reuse Guidelines Update and Proposed Cesspool Ban and Rule Revision (DOH-WWB & SDWB)	Speaker #1: SWP Technical Assistance and USDA Funding (HRWA)
1:30pm	Speaker #1 – (continued) (DOH-WWB & SDWB)	Speaker #2: Wellhead Protection Funding Under the Safe Drinking Water Act (DOH-SDWB)
2:00pm	Break	Break
2:15pm	Speaker #2: Water Use Reporting Compliance (DLNR-CWRM)	Speaker #3: State Pesticides Program (DOA-Pesticides)
2:45pm	Speaker #3: Update on Deep Well Drilling Projects (Don Thomas, Ph.D., UH)	Speaker #4: Project WET for SWP (DOH-SDWB)
3:15pm	Wrap-up	Wrap-up

MORNING SESSION

WATER RESOURCE PROTECTION PLAN UPDATE

Jeremy Kimura, DLNR – Commission on Water Resources Management

BIOGRAPHY

Jeremy Kimura is a hydrologist in the Planning Branch of the Commission on Water Resource Management. He has been working with the Commission since 2006. He is a graduate of Hilo High School and the University of Hawaii at Manoa's School of Ocean and Earth Science and Technology.

ABSTRACT

Status of the Hawai'i Water Resource Protection Plan Update

The Commission on Water Resource Management (Commission) is currently updating the 2008 Water Resource Protection Plan (WRPP). The WRPP is a key component of the Hawai'i Water Plan. Its objective is to protect statewide public trust water resources and uses, watersheds, and natural stream environments. At a minimum, the WRPP will:

- Document the types of water resources available, identifying hydrologic units and characterizing them by quantity and quality;
- Identify requirements for beneficial instream use and environmental protection;
- Describe Commission regulatory programs and resource monitoring efforts by the Commission and others;
- Describe existing and potential future water uses and their impacts on the resource, as well as their consistency with the objectives and policies presented in the WRPP; and
- Describe programs to conserve, augment, and protect water resources.

As a part of this update, the Commission will:

- Incorporate new information obtained since the last update in 2008;
- Integrate the results of recent Commission and other relevant agency program activities with existing protection measures and management strategies;
- Further address emerging issues such as climate change; and
- Develop a succinct, action-oriented plan.

WATER QUALITY PLAN UPDATE

Joanna L. Seto, P.E., Safe Drinking Water Branch, Hawaii Department of Health

BIOGRAPHY

Joanna L. Seto, P.E., is the Engineering Program Manager of the Department of Health's Safe Drinking Water Branch. She has more than 25 years of combined private and public engineering experience working at Hawaiian Dredging & Construction Company, Sato & Associates, Inc., and the Department of Health, Clean Water Branch and Safe Drinking Water Branch. Joanna is currently the Past-Chair of the American Water Works Association-Hawaii Section. She was past president of the Hawaii Section of the American Society of Civil Engineers and is involved with the Kalani Falcon Band Boosters, Na Wahine Softball Club, and as class representative for the `Iolani Bulletin. She graduated from `Iolani School and Washington University in St. Louis, Missouri where she earned a Bachelor of Science in Civil Engineering.

ABSTRACT

The Hawaii Department of Health is responsible for the preparation of the Water Quality Plan, one of the required plans that comprise the Hawaii Water Plan. The Draft Water Quality Plan was prepared last year. This presentation will provide an update on the various water quality and protection programs within the Hawaii Department of Health.

COUNTY WATER USE AND DEVELOPMENT PLAN UPDATE

Barry Usagawa, P.E., Honolulu Board of Water Supply

BIOGRAPHY

Barry Usagawa is the Program Administrator for the Water Resources Division of the Honolulu Board of Water Supply. He is a licensed Professional Engineer with a B.S. in Civil Engineering from the University of Hawaii and has worked for 29 years at the Honolulu Board of Water Supply in water systems analysis, environmental, capital planning and water resource management.

ABSTRACT

Accurately forecasting Oahu's future municipal water demand is a significant challenge especially as conservation has been driving water demand down for the last 20 years. With the 2010 census data finally in, 30-year trends can be analyzed for population, water demand, and per capita water use among Oahu's 8 land use districts. Inference effects of climate, population, density, affluence, agriculture, nonpotable water and cost incentives driving conservation will be discussed.

STATE WATER PROJECTS PLAN
**Dennis Imada, Engineering Division, Hawaii Department of Land
& Natural Resources**

BIOGRAPHY

Mr. Imada is a Project Engineer with the Hawaii Department of Land and Natural Resources, Engineering Division, Project Planning Section. He is a graduate of the University of Hawaii with a BS degree in Civil Engineering. Mr. Imada has been a member of the ASCE since 1983 and the AWWA since 1990.

ABSTRACT

Assuming a brief overview of the Hawaii Water Plan and the components will be provided, I will discuss the following. My presentation will begin with the overview of the State Water Project Plan and describing the various components, demands for State projects for well development and/or water system improvements, and the usefulness in obtaining Legislative funding for the State project(s). Also, will provide a brief overview of the recent DHHL water demands.

FUNDING OPPORTUNITIES FROM HAWAII ENERGY FOR WATER/WASTEWATER FACILITIES

Kate Aurilio, Hawaii Energy

BIOGRAPHY

Kate Aurilio is the [Manager](#) of Technical Services Group at Hawaii Energy. Her special area of focus for the last two years has been energy efficiency and conservation within the private and municipal water and wastewater sector. She also works with new and existing commercial projects across the state to improve energy efficiency. She has extensive process experience in a number of different industries, such as food processing, chemical manufacturing, and biotechnology. She has a BS in chemical engineering from Northeastern University in Boston and an MBA from Villanova University.

ABSTRACT

Presentation will cover: the Hawaii Energy program in general; typical incentives for commercial businesses (both custom and prescriptive incentives); special incentives specific to water/wastewater sector; specific examples of projects funded for water/wastewater – includes energy savings, project costs, and incentive amounts; and how to apply for incentives.

**LUNCH
SPEAKER**

LUNCH SPEAKER

EPSCoR – MERGING GROUNDWATER SCIENCE WITH THE NEEDS OF THE STATE

Gwen Jacobs, Ph.D., University of Hawaii, Director of Cyberinfrastructure
in Information Technology Services

BIOGRAPHY

Dr. Gwen Jacobs is the UH Director of Cyberinfrastructure in Information Technology Services and is leading the current effort to get a National Science Foundation grant under the Experimental Program to Stimulate Competitive Research (EPSCoR) program. This EPSCoR grant will focus on investigating Hawaii's groundwater and will produce a 3D analyses of groundwater distribution, geologic structures and physical characteristics of our aquifers. Dr. Jacobs received her undergraduate training in Human Anatomy and Physiology from UC Berkeley, a Masters Degree in Physiology from UC Davis and her PhD in Neuroscience from SUNY Albany. She was on the faculty at UC Berkeley for 15 years and on the faculty of Montana State University for 16 years where she was a Professor of Neuroscience, Assistant Chief Information Officer and Director of Research Computing. In addition to her faculty roles, she directed the Howard Hughes Undergraduate Biology Program (2002 – 2014) and directs research computing initiatives for UH, promoting the development of sustainable research infrastructure.

ABSTRACT

Hawaii's groundwater resources are protected and managed by the dedicated staff of our State Agencies. Proper management and protection of our valuable groundwater resources requires an in-depth understanding of the science behind groundwater flow and contaminant transport, including a detailed knowledge of the island structures that govern groundwater flow, the pathways that groundwater travels, and the influence of groundwater on our coastal resources. The University of Hawaii is strategically positioned to provide the State Agencies with the scientific support needed for optimal groundwater management and protection. The National Science Foundation's Experimental Program to Stimulate Competitive Research (EPSCoR) is the ideal vehicle for UH researchers and State Agency staff to combine efforts in acquiring the scientific knowledge needed to ensure continued groundwater quality and sustainability. Specifically, the goals of the current EPSCoR effort are to:

- (1) Create a comprehensive 3D model of Hawaii's aquifers and water flow processes;
- (2) Create a transformative knowledge resource and modeling platform to empower Hawaii's water research and decision support; and
- (3) Establish an inclusive and diverse pipeline of undergraduates, graduate students, postdocs and junior faculty to confront Hawaii's future water challenges at the academic and policy level.

We discuss how the collaboration between the EPSCoR team and the State Agencies can increase the body of groundwater science knowledge. We also provide examples of how past collaborations in the areas of exploratory geophysics, exploratory drilling, and consolidating relevant geothermal data into a web-assessable database are changing how we view groundwater in Hawaii.

CONCURRENT SESSION A

WATER REUSE GUIDELINES UPDATE
And
PROPOSED CESSPOOL BAN AND RULE REVISION
Sina Pruder, Wastewater Branch, Hawaii Department of Health
Robert Whittier, Safe Drinking Water Branch, Hawaii Department of Health

BIOGRAPHY

Sina Pruder received her engineering degree from the University of Hawaii. She has worked in the Wastewater Branch for 20 years, and is currently the Branch Chief. Wastewater Branch is responsible for overseeing the use of wastewater management systems and the water reuse guidelines.

Robert Whittier is currently the Source Water Protection Program Geologist. Prior to March 2015 he was an Environmental Health Specialist with the Hawaii Department of Health's (HDOH) Safe Drinking Water Branch. He has over fifteen years of experience as a hydrogeologist specializing in contaminated site investigations, groundwater modeling, and groundwater contamination risk assessments. Mr. Whittier received his Masters degree from the University of Hawaii majoring in Hydrogeology. His responsibilities at the Safe Drinking Water Branch include monitoring groundwater quality, designing and implementing groundwater contamination risk studies, and assessing the vulnerability to contamination of new or proposed drinking water sources. Prior to his joining HDOH Mr. Whittier worked as a hydrogeologist at the University of Hawaii. Mr. Whittier was lead hydrogeologist for the Lahaina Groundwater Tracer Study that confirmed a hydraulic connection between the underground injection of treated wastewater at the Lahaina Wastewater Reclamation Facility and nearshore submarine springs in the Kaanapali area. His primary project at UH was that of lead modeler and GIS analyst for HDOH's Source Water Assessment Program (SWAP). The SWAP is responsible for delineating the zones of contribution to the state's public drinking water sources, inventorying the potentially contaminating activities (PCAs) within the delineated zones, and assessing each source's vulnerability to contamination. His other projects include an on-site sewage disposal system (OSDS) risk analysis and the Lahaina Groundwater Tracer Study. The OSDS risk analysis study estimated the number and locations of OSDS in the State of Hawaii and ranked the risk each system poses to human and environmental health.

ABSTRACT

This presentation will cover water reuse and cesspool activities in the state of Hawaii. Topics include: recycled water usage statewide, trends and challenges, status of the reuse guidelines, using the state revolving fund for construction of reuse facilities, proposed cesspool ban, legislature approved tax credits for upgrades, others.

Robert Whittier has been providing assistance to the Wastewater Branch on technical issues related to these reuse water and cesspool changes and will present the results of his assistance, as well as answer questions related to technical components of these topics.

WATER USE REPORTING COMPLIANCE
Patrick Casey and Robert Chenet
Department of Land & Natural Resources, Commission on Water Resources
Management

BIOGRAPHY

Patrick Casey is a Geologist II with the Survey Branch of the Commission on Water Resource Management, and manages the CWRM's deep monitoring well program, and assists with water resource studies and water use reporting. Before joining the CWRM in 2012, he served as a project manager for environmental consulting firms for 16 years in Hawaii and for 10 years in California before moving to Hawaii. Mr. Casey holds a Bachelor of Science degree in Geology from the University of British Columbia, and is a Professional Geologist and Certified Hydrogeologist.

Robert Chenet is a Geologist I with the Survey Branch of the Commission on Water Resource Management, and manages the CWRM's ground water use reporting program and assists with the deep monitoring well program and water resource studies. Before joining the CWRM in 2012, he served as a project geologist for environmental consulting firms for 20 years in Hawaii and Arizona, about 2 years for geotechnical consulting firms in Hawaii and California and about 2 years in mineral exploration in Arizona. Mr. Chenet holds a Bachelor of Science degree in Geology from the Arizona State University, and is a Professional Geologist in Wyoming and an AIPG Certified Professional Geologist.

ABSTRACT

The Commission on Water Resource Management has been tasked to manage the state's water resources. Some 4,850 wells have been installed across the state, reaching back as far as 1879. It is vital to our aquifers' health that wells are not only accounted for, but properly maintained.

Accounting for the quantity of water withdrawn from our production wells is crucial for maintaining a healthy balance of recharge and withdrawal, so our aquifers can continue to provide us, and those who follow us, with the high quality fresh water we are so fortunate in Hawaii to have.

The CWRM manages Hawaii's ground water and surface water resources through our Water Resource Information Management System database (WRIMS). WRIMS is updated continuously, and one of the most important inputs is the water use reports that every well owner/water use reporter is required to submit, on a monthly basis.

Historically, water use reporters have submitted their monthly reports by mail or FAX.

To simplify, and to make the process easier, and far more efficient, the CWRM has developed an on-line reporting system, and made it public in May 2013. This presentation is focused on the importance of ground water use reporting compliance, and will provide an overview of water use reporting, and a real-time demonstration of the on-line reporting process and its benefits.

UPDATE ON DEEP WELL DRILLING PROJECTS

Don Thomas, Ph.D., University of Hawaii-Hilo, Center for the Study of Active Volcanoes

BIOGRAPHY

Dr. Don Thomas is a geochemist and currently the Director of the Center for the Study of Active Volcanoes at the University of Hawaii-Hilo. Dr. Thomas is a principal investigator in an effort to get a National Science Foundation grant under the Experimental Program to Stimulate Competitive Research (EPSCoR) program. This EPSCoR grant will focus on investigating Hawaii's groundwater and will produce a 3D analyses of groundwater distribution, geologic structures and physical characteristics of our aquifers. Dr. Thomas received a B.S. in chemistry and physics from Dickinson College, a M.S. in ElectroChemistry from Oregon Graduate Institute, and a Ph.D. in geochemistry from the University of Hawaii.

ABSTRACT

Dr. Thomas most recently has been involved in deep drilling projects in Hilo and at the Army's Pohakuloa Training Area that are changing our conceptual models of Hawaii's groundwater. Dr. Thomas will present an update on these deep well drilling projects.

**CONCURRENT
SESSION B**

SOURCE WATER PROTECTION: TECHNICAL ASSISTANCE FROM THE HRWA

Tui Anderson, Hawaii Rural Water Association

BIOGRAPHY

Mr. Tui Anderson is the Source Water Protection Specialist for Hawai'i Rural Water Association where he has been working for two years. Mr. Anderson has extensive experience working within the water industry for the last seven years. He worked for the Maui County Department of Water Supply for five years as a Conservation Specialist. Mr. Anderson has a bachelor's degree from University of California at Santa Cruz in Marine Biology. He enjoys surfing, photography, mtn. biking and hiking. He is married and has a wonderful one year old daughter.

ABSTRACT

For the past two years, the Hawaii Rural Water Association has received a grant from the United States Department of Agriculture (USDA) to assist water systems and rural communities with Source Water Protection. The presentation will provide an overview of the assistance that can be provided by the HRWA for Source Water Protection. In addition, the presentation will describe funding/grants for water/wastewater project available through the USDA.

WELLHEAD PROTECTION FUNDING UNDER THE SDWA
Daniel Chang, Safe Drinking Water Branch, Hawaii Department of Health

BIOGRAPHY

Daniel Chang is an Environmental Health Specialist with the Hawaii Department of Health's Safe Drinking Water Branch. He has over 30 years of experience in hazardous waste, groundwater and drinking water quality and protection programs. Mr. Chang received his Bachelors degree from the University of Hawaii at Manoa in 1982 majoring in Chemistry. His duties and responsibilities at the Safe Drinking Water Branch includes: oversight/supervision of the Monitoring & Analyses Section, the Groundwater Protection Program, and providing guidance/assistance to the Wellhead/Source Water Assessment and Protection Program staff.

ABSTRACT

The Hawaii Department of Health utilizing Drinking Water State Revolving Fund (DWSRF) – 15% Set-Asides have developed and implemented a Wellhead Protection – Financial Assistance Program. Under this program, the Safe Drinking Water Branch provides grants to plan, develop, and implement programs and activities for protection drinking water sources from contamination. This presentation will give an overview of the WHP-FAP program, what the program has accomplished, and what future developments are being identified for the Program.

EVALUATION OF NEW PESTICIDES IN PRODUCT REGISTRATION

Monica Tauyan & Christina Zimmerman, Hawaii Department of Agriculture

BIOGRAPHY

Monica Tauyan

Monica is an Environmental Health Specialist in the Registration & Technical Review Unit of the Hawaii Department of Agriculture Pesticides Branch. In this position, Monica is responsible for pesticide label reviews, product licensing, Experimental Use Permits and Special Local Need registrations. As part of her duties, she also reviews compounds that are new to the state of Hawaii to determine leachability in Hawaiian environment, in collaboration with other agencies or organizations like the University of Hawaii Water Resources Research Center. Prior to her work in the Pesticides Branch, Monica worked in the Plant Pest Control Branch as Pest Control Technician surveying for Citrus Greening Disease under a cooperative agreement with the US Department of Agriculture.

Christina Zimmerman

Christina is an Environmental Health Specialist in the Hawaii Department of Agriculture Pesticides Branch, supervisor of the Registration & Technical Review Unit. Christina's responsibilities include pesticide label reviews, product licensing, issuance of Experimental Use Permits, Special Local Need registrations (FIFRA 24(c)), and Emergency Exemptions (FIFRA Section 18), and assistance with label interpretations for other Sections, other state and Federal government agencies, industry personnel, and the general public. Christina also oversees and provides technical assistance with groundwater reviews, the pesticide product database, the Good Neighbor Program database, and maintenance of the state data in EPA's Pesticides of Interest Tracking System.

PRESENTATION ABSTRACT

Evaluation of New Pesticides in Product Registration

This presentation provides a brief summary of the review process for products containing active ingredients new to Hawaii when determining eligibility for licensing in the state.

PROJECT WET (WATER EDUCATION FOR TEACHERS)
Daniel Chang, Safe Drinking Water Branch, Hawaii Department of Health

BIOGRAPHY

Daniel Chang is an Environmental Health Specialist with the Hawaii Department of Health's Safe Drinking Water Branch. He has over 30 years of experience in hazardous waste, groundwater and drinking water quality and protection programs. Mr. Chang received his Bachelors degree from the University of Hawaii at Manoa in 1982 majoring in Chemistry. His duties and responsibilities at the Safe Drinking Water Branch includes: oversight/supervision of the Monitoring & Analyses Section, the Groundwater Protection Program, and providing guidance/assistance to the Wellhead/Source Water Assessment and Protection Program staff.

ABSTRACT

In December 2012, the Kauai DOW was granted a contract with the Department of Health-Safe Drinking Water Branch to implement the Project WET curriculum for source water protection education throughout the state of Hawaii. This presentation will provide a background of Hawaii's Project WET program, what has been accomplished since the start of the contract, responses from participating teachers, and information on what's next for the remainder of the statewide initiative.

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CONFERENCE EVALUATION FORM

1. How much experience do you have working in water/wastewater industry program areas?
___ 0-1 years ___ 2-5 years ___ 5-10 years ___ 10-20 years ___ 20+ years

2. Which water industry area(s) do you work in? (Check all that are applicable)

___ Drinking Water ___ Wastewater ___ Water Quality
___ Water Resources ___ Water Protection ___ Watershed Management
___ Other (specify): _____

3. How would you rate the overall conference?
___ Excellent ___ Good ___ Adequate ___ Poor

4. What did you like about the conference? _____

5. What did you dislike about the conference? _____

6. How do you rate the presentation of technical information (was it presented in an understandable and interesting manner)?
___ Excellent ___ Good ___ Adequate ___ Poor

7. Did this conference meet your expectation?
___ Yes ___ No

Comments: _____

8. Have you attended any of the previous Joint Government Water Conference(s)?
___ Yes ___ No If Yes, would you rate this conference as: BETTER WORST

9. In the future, would you attend this type of conference again?
___ Yes ___ No

Comments: _____

10. In April 2015, the Hawaii Department of Health (DOH) implemented a Nutritional Wellness Policy that committed us to provide a safe, healthy, and productive environment for its employees and members of the public using its facilities or attending a DOH sponsored event. The adoption of this policy shall ensure that healthy choices are available whenever food and beverages are purchased with state or federal funds for DOH meetings, conferences, and other DOH sponsored events throughout the state. Do you think that the food and beverages served at today's conference provided you with a healthy choice or not.

___ YES ___ NO If NOT (please explain) _____

11. Are there aspects of the conference that you believe should have greater (or less) emphasis?

10. Do you have any suggestions on how the conference could be improved?

11. Do you have any suggestions for topics for future conferences?

Thank you for attending the 2015 3rd Annual Joint Government Water Conference and for completing this evaluation form. Your comments will help us to better plan future conferences.

OPTIONAL:

Name: _____