If you are looking to learn all there is to know about water, the AWWA ACE16 was the place to be this summer. ACE16 was held this year from June 20-22, 2016, in the great city of Chicago, Illinois.

To start with, over 500 hundred companies filled the exhibition hall with products related to the water industry. You could find all sorts of pipes, valves, meters, software, hydrants, equipment, boxes, etc. in all shapes, sizes and colors. The exhibitors were available to answer questions and demonstrate the latest in gadgetry, services and materials—lots of bells and whistles.

The professional program offered presentations about water quality, management and leadership, water research, water standards, water reuse, maintenance, rehabilitation, distribution systems, and plant operations, just to name a few. Programs started on Sunday and went all the way through Wednesday.

Workshops were conducted that talked about fresh perspectives on many relevant topics. One major topic that drew lots of interest involved the problems and challenges facing the Flint, Michigan water system. The discovery of significant amounts of lead in the system after Flint changed the source of their potable water has been a topic of national interest and controversy.

continued on page 2
In addition to all the exhibits and presentations, there were many competitions. There is a competition that features the top utility teams from around the country as they race to tap a ductile iron pipe and install a copper lateral. We watched skilled individuals put together a water meter from a bucket of parts and race the clock for the fastest times. These competitions draw large crowds cheering on their favorite teams. One of the more interesting competitions is the Top Ops challenge that tests the everyday knowledge of water treatment operators in a “college bowl” format.

The winners in the pipe tapping contest in the men’s division came from Monterrey, Mexico. The women’s division title was claimed by the women from Lansing, Michigan.

The winners in the Top Ops completion the City of Palm Coast, Florida. The winner in the Meter Madness competition came from Mondova, Mexico.

The Hawaii Section and Brown and Caldwell hosted a social event on June 15th in the basement of the 7 Lions restaurant. Hawaii Section members attending the conference enjoyed a great atmosphere of food and beverages and renewing friendships with other Hawaii Section attendees. In addition, several national officers stopped by to meet and socialize with the Hawaii Section members. Many thanks to all who helped in putting together this event, especially to Brown and Caldwell for their support.
The Hawaii Section attendees were there for the opening session of the conference and the exhibition hall. Mike Dahilig was the first Hawaii attendee to show up for the early morning session. The officers visited the vendor booths that have supported the Hawaii AWWA/Pacific Water Conferences and passed out Hawaiian Host candies that were well received.

One of the highlights for the Hawaii Section at the conference was the Fuller Award breakfast where Ross Kaneko was honored for his service to the water industry and to the Hawaii Section. The Hawaii contingent was there to cheer loudly for Ross and thank him for his many years of service.

Chicago is a city full of great eating places, skyscrapers, shopping and site seeing. The Hawaii Section members took full advantage of all the special things to do, including catching a Cubs baseball game versus the St. Louis Cardinals, with Kolten Wong. A great time was had by all.

AWWA ACE17 is scheduled for Philadelphia, PA, next year. Make plans to be there. Aloha.§
Chair’s Message
By Michael Street
Hawaii Section Chair

The new term has started for the current slate of Hawaii Section officers. As the Chair for 2016-2017 replacing the irreplaceable Jeff Pearson, we look forward to many adventures.

The Hawaii Section started off the new fiscal year with a strategic planning meeting held at the Pagoda Hotel on June 10th. With many committee chairs and officers in attendance, we discussed the plans for the upcoming year. The AWWA handbook was distributed and contains much of the Section documents (Bylaws, Strategic Plans, Standard Practices, Budgets, Section committee chair job descriptions, past Section organization charts, etc.) needed to assist committee chairs and officers in carrying out their responsibilities. Questions about how the Hawaii Section operates can be answered by referring to the handbook.

Hawaii Section members attended the recent ACE16 conference in Chicago (see related article and photos on Page 1). There were a lot of exhibits, presentations, and social activities so plan on going to ACE17 in Philadelphia next year.

Juanita Colon, Section Vice Chair, attended the Summer Workshop held in Denver on July 26-28. The Summer Workshop provides

Hawaii Section Mission Statement

The Hawaii Section AWWA is dedicated to the promotion of public health and welfare in the provision of drinking water of unquestionable quality and sufficient quantity. The Hawaii Section AWWA must be proactive and effective in advancing the technology, science, management, and government policies relative to the stewardship of water.
training and skills building to help Section leaders and/or staff to run the business of the Section more effectively.

The RMSO (Regional Meeting of Section Officers), Region V, is moving ahead with the plans for the December 5 and 6 meeting. The meeting will be held at the Hilton Hawaiian Village. The Hawaii Section has many exciting events for the attendees from the other sections including an opening dinner on December 5 at the Hale Koa Hotel.

We would like to encourage the membership to send in your comments and suggestions for improving the Hawaii Section. Feel free to contact a Section officer or committee chair.

We are always looking for those that want to get involved with the Hawaii Section. We have many committees that can use help in carrying out their activities.

Small Utility Promotion
Prospective small utilities with less than 5,000 service connections may join now for 25% off AWWA dues (a $75 discount) and receive a free AWWA Water Operator Field Guide.

Hawaii Section Vision Statement
Hawaii Section of the American Water Works Association will be the leading force in the State of Hawaii dedicated to safe drinking water.
Aloha members,

This past June the 2016 ACE conference enjoyed just over 12,000 attendees in Chicago. Highlights included education classes, vendor displays, Chicago Cubs, deep-dish pizza and great friends! This year our annual Hawaii Section social was located on Chicago’s famous Michigan Avenue. I always look forward to seeing familiar faces and meeting new ones.

A few highlights from our Board Meeting in Chicago:

- AWWA Water Utility Council (WUC) voted to support the National Drinking Water Advisory Council’s (NDWAC’s) recommendations on Lead. Key NDWAC recommendations are as follows:
  1. Over time, locate and replace all lead service lines completely, while sharing responsibility for that replacement with customers.
  2. Conduct additional monitoring and analysis of water quality parameters in order to better manage corrosion control.
  3. Expand current educational outreach to alert customers, particularly customers with lead service lines, to the risks posed by lead and steps they can take to reduce those risks.
  4. Transition from the current in-home compliance tap sample requirements to analysis of customer requested samples for lead.

- AWWA supports complete removal of all lead service lines over time through a process of shared responsibility. Replacing lead service lines involves shared responsibility among utilities, customers, government and other stakeholders.

AWWA Core Principles
- Protect Public Health
- Safeguard the Environment
- Share Best Practices
- Inspire Innovation
- Foster Diversity and Inclusion

### Top Five Issues Facing AWWA Members

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<thead>
<tr>
<th>Issue Rank</th>
<th>Issue Description</th>
<th>Source: AWWA Member Research Study; based on 6,417 survey responses</th>
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<tbody>
<tr>
<td>1</td>
<td>Aging Water and Wastewater infrastructure</td>
<td>Aging Water and Wastewater infrastructure</td>
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<tr>
<td>2</td>
<td>Compliance with Current Regulations</td>
<td>Financing for capital improvements</td>
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<tr>
<td>3</td>
<td>Aging Workforce</td>
<td>Compliance with current regulations</td>
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<tr>
<td>4</td>
<td>Financing Capital Improvements</td>
<td>Aging Workforce</td>
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<tr>
<td>5</td>
<td>Public’s understanding of Value of Water</td>
<td>Public’s understanding of Value of Water</td>
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The 2016-17 AWWA-HIWPS Officers of the Board of Trustees and various committee officers and members has had its first meeting on July 15, 2016 and began to plan for FY 2016-2017 activities. The subsection planned on having Pipe Tapping Demo to be held along with our General Membership Meeting on November 8, 2016. We will be linking up with University of Guam Water and Environment Research Institute (WERI) with the same objective of joining people together in this sparsely populated region.

Our annual conference and tradeshow will be in March 2017 and it will be held in Guam. Our workshop will be in Saipan to support the open exchange of experiences and as part of our goal to reach out to every participating location of the subsection.

For our accomplishments we are proud to share that we conducted a free refresher training for those who took the water and wastewater certification examinations. Discussions were made to develop a training program, investing in educational materials, and webinar to support our subsection’s mission.

We are also active in attending other professional organization’s social events such as the Guam Society of American Military Engineers (SAME) to introduce AWWA-HIWPS and encourage member participation.

We are looking forward to an enthusiastic and active Subsection.

Joint Board and Planning Committee Meeting
IHUE – The Department of Water (DOW) met with Department of Education (DOE) officials, Tuesday at the State of Hawaii Government Office in Lihue, to present the island’s three public high schools with custom-made water hydration stations for their athletic programs.

“On behalf of the Department of Water, we are pleased to donate these custom hydration stations that will support student athletes, faculty, coaches and community volunteers,” said Kirk Saiki, DOW’s manager and chief engineer.

The DOW’s waterworks inspector, Freddy Levinthol, is the creator of the custom hydration stations and brought the idea to Saiki of donating them to the high schools.

“Freddy approached me about a month ago with the idea, and I was immediately on board,” said Saiki. “He finished constructing all three a few weeks later, just in time for the start of pre-season football.”

Levinthol is no stranger to the needs within high school athletic programs. He has helped with Kapaa High School’s football team for about seven years, and was on the coaching staff during the time Kelii Morgado was the head coach.

“When our KIF games were switched to Saturday afternoons from Friday nights, hydration became a critical issue,” said Morgado, who is now Kauai High School’s athletic director. “I showed Freddy what type of hydration stations were being sold on the internet for athletic teams. These units contain expensive marine pumps and rechargeable batteries, not to mention high shipping rates to Hawaii. Freddy used his expertise in plumbing to come up with a hydration station that is far superior to anything you can find online. We would simply fill the cooler with ice and hook it up to the water hose down at our field. Hydrating our athletes became so much easier because of the ‘Levinthol Hydration Station’.”

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Levinthol built the mobile stations mainly using items from the local hardware stores. It works through a water spigot connection. When water is turned on it first moves through copper coils installed inside of a water cooler, which is situated on top of a mobile garden cart. Ice is piled on top of the coils, cooling the water as it is dispensed through eight different sprays. Water comes out ice-cold with this pressurized system and does not need electricity or batteries to operate.

“I’d like to say thank you to Kirk Saiki, the Department of Water and Freddy Levinthol for this incredibly creative gift,” said Mahina Anguay, principal of Waimea High School. “Waimea is so hot; this will help to keep our student athletes hydrated and safe through practice and competition. On behalf of myself, my athletic director Jon Kobayashi and the students and staff of Waimea High School, thank you very much.”

“On behalf of the Kauai Complex Area Department of Education, I would like to thank the Kauai Department of Water and Freddy Levinthol for the three fabulous water stations to our high schools,” said Bill Arakaki, DOE’s Kauai complex area superintendent. “The water stations will be a great asset to our athletic departments to hydrate our student athletes and coaches during practices and games. We truly appreciate the assistance and support from our County partners.”

Daniel Hamada, principal of Kapaa High School and president of the Kauai Interscholastic Federation (KIF), also expressed his gratitude for coming together in support of student athletes. “We may be competitive in athletic events, but our collective efforts remain focused in helping our island students,” he said. “Mahalo for making this a reality for our students.”

The DOW has its own ‘Levinthol Hydration Station’ that it uses for events such as the DOW’s annual Make a Splash water education festival, and the County’s Mayor-a-Thon which was held on Saturday.
On August 12, 2016, HWEA|AWWA Young Professionals (YP) in conjunction with ASCE Younger Member Forum (YMF) organized a field trip event at Tileco Inc. Tileco Inc. is a locally owned manufacturing company which produces concrete masonry blocks for retaining walls and paving, and various landscape and garden products. YP and YMF members learned about the manufacturing process and how Tileco recycles concrete material and water in their block making process. Members also learned about the various products they carry.

Group Picture of the YP and YMF Members who Attended the Field Trip

Special thanks to Leanne Sakamoto and the team at Tileco for showing us around!
YP Community Service Event at Mokauea Island

By Brittney Higuchi
Young Professionals Social Committee Co-Chair

On Saturday August 20, 2016, nine volunteers from the Young Professionals (YP) of the AWWA|HWEA Hawaii Section helped with the Mokauea Island Restoration Project. YP members worked hard to clean debris and remove invasive pickleweed, but also had the opportunity to paddle to the island via outrigger canoes, learn the history of the Keehi Lagoon region, and explore the beach during low tide.

Mokauea Island is a ten-acre property located in Keehi Lagoon between Honolulu Harbor and the Honolulu International Airport. On the site exists Oahu’s last Hawaiian fishing village; one of only two left in Hawaii. There were hundreds of villages that thrived prior to Europeans. These villages had impressive and unique knowledge about the sea, currents, tides, seasons, and the building and handling of crafted canoes and fishing equipment. The goal for the island is to re-create a traditional Hawaiian self-sustaining fishing village, where a learning center will allow for scientific studies as well as perpetuation and practice of Hawaiian fishing and maritime culture.

Volunteers cleaned out damaged items soaked from hurricane Darby and also widened a walking trail by clearing out pickleweed. The island plans to restore the land with more native plants, and remove all invasive species including red mangrove and long thorn kiawe. Volunteers are also needed to regularly pick up and dispose of marine debris.

If you are interested in joining a service project with the island, please contact Kehaulani Kupihea: Mokauea@gmail.com.

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YP Community Service Event at Mokauea Island, continued from page 11

More information can be found here: http://www.kaimakana.org/mirp.htm#repair.

Thank you to everyone who helped out with the service event! Also special thank you to Joni Bagood and Kehaulani Kupihea for the opportunity to learn about and explore Mokauea Island.

Volunteers Loading up to Paddle to Mokauea

Watering Native Plants with Rainwater Collected from a Tote Catchment System

55th Annual HWWA AND 1st Annual HRWA Conference & Exposition
November 2 - 4, 2016 Wailea Beach Marriott Resort, Maui, HI

The Hawaii Rural Water Association is pleased to announce our first joint conference and exposition with the Hawaii Water Works Association. For details, registration or expo information please contact HRWA at www.hawaiirwa.org
On Wednesday, July 27, 2016, HWEA|AWWA Young Professionals (YP) held a general meeting and social event at The Social Eatery and Bar. At the event, YP Chair, Jessica Agsalda, announced upcoming events, while the YPs enjoyed some pupus.

New AWWA Hawaii Section Members

Please welcome our newest Hawaii Section members!

Yvonne Cabrera
Paul Coelho
Danial Drake
Robert Garrido
Henry Giltner
Mahana Gomes
Troy Heen
Paul Huber
Harding Kamanu

Jason Koskey
Jeffrey McCloud
Bob Mitchell
Tom Myers
Rosemarie Navea
Alanna Olear
Wendy Olsen
Norberto Ramos
Sonny Reyes

Roy Reyes
Mancini Santos
Ryan Smith
Michelle Sorensen
Abraham Takushi
Brian Weakley
Louisa Wooton
Alden Yago
How much do you know about your water system’s physical condition? Do you know what your water losses are? Have you done a water audit? Most public water systems keep track of their source production and customer sales, but does anyone have a really good idea of the volume of water entering their system and the volume of water leaving their system? I would bet that most operators have not taken the time to do a proper water audit of their system.


Commission on Water Resource Management (Commission) staff was introduced to the AWWA water audit methodology several years ago at an industry conference, where it was touted as an emerging best practice for water management. One of the fundamental responsibilities of the Commission is to plan and coordinate programs to conserve and protect Hawai‘i’s water resources in cooperation with government agencies and private organizations. In February 2013, the Commission completed its *Hawaii Water Conservation Plan*, which recommended two priority actions for the near-term: (1) an irrigation metering demonstration project for agriculture; and (2) procedures for conducting and requiring annual water loss audit of public water systems. The Commission implemented its first priority action in 2013 through a partnership with the U.S. Geological Survey to conduct a diversion metering training workshop for large agricultural irrigation systems. To implement the second priority action, Commission staff worked with the Hawaii Fresh Water Initiative partners to develop legislation that would help to achieve statewide water audits.

This collaboration culminated in Act 169, Session Laws of Hawaii, 2016 (Act 169), which was signed into law by Governor David Ige in June 2016. The Act authorizes and requires the Commission to develop and implement a water audit program and provide technical assistance (training) to counties and other public water system owners, enabling them to complete an initial validated standardized water audit. Thereafter, utilities are required to complete and submit validated water audits to the Commission on an annual basis.

**What’s a Water Audit?**

A water audit is simply a mass balance analysis starting with the volume of water entering the system (system input volume) and the volume of water leaving the system (authorized consumption + water losses). Key in the analysis is the source meter and customer meter data which form the foundation of the water balance. All of the water entering and leaving the system can be accounted for using meter data while making careful estimates and deductions regarding system variables. No more “unaccounted-for water.” System losses can be categorized into real and apparent losses. Real losses are the physical leaks. Apparent losses can be attributed to many factors, but are commonly caused by inaccurate meters and data handling errors. AWWA has standardized the water balance in its M36 publication.

The AWWA method systematically breaks down the water balance into its fundamental elements. In order to simplify data inputs, AWWA also developed free water audit software based on Microsoft Excel to facilitate water audit completion. The software produces a suite of outputs which will help utility managers identify actions that can be taken to reduce system losses and improve data validity. Important outputs include system performance indicators, cost (in dollars) to the utility from real and apparent water losses, and prioritized action recommendations.

Water audit results are only as good as the data used in the audit – which should be validated by a qualified third-party validator. Validated water audits will allow a utility to design a cost-effective and data-driven water loss control program.

**A Growing Trend Across the U.S.**

You may have heard that in recent years water audits have become mandatory in several continued on page 15
states across the U.S., under the authority of various regulatory agencies. These progressive states include California, Delaware, Georgia, Illinois, New Jersey, New York, Pennsylvania, Tennessee, Texas, Washington and Wisconsin—and now Hawaii. These states recognize the importance and benefits of water audits to utilities and their ratepayers through more efficient delivery of water. They also realize that the resulting loss control programs will lead to conserving water resources, thereby stretching available supplies. The Environmental Protection Agency has gotten behind water audits—most recently in California where their Drinking Water State Revolving Fund funded a statewide water audit training program. Another important aspect of water audit and loss control programs is the water-energy nexus. Electricity is one of the highest operating costs for a water utility. By repairing leaks a utility can save a lot of money by reducing the amount of water it has to pump. In some states, drought and water shortage or scarcity have been important drivers of states’ water audit requirements and programs.

Benefits to a Water Utility

Why would a utility manager want to do these water audits? He or she is probably thinking “Everything is fine with my system. I do some leak detection, most customers pay their bills and water quality is good. I have a lot of other stuff to do besides these water audits.” Well, sometimes you don’t really know how your system is running until you drill down and take a closer look. Do you have a meter testing program? How about leak detection? Do you know how much water is lost in hydrant testing or main breaks? Doing an AWWA water audit will help a manager better understand all of these things and more. You may be surprised at what you find and that you suddenly have the data and information to justify programs that will reduce your leaks and increase revenue. Water audits are the first step in developing a comprehensive water loss control program that will yield multiple benefits over time. Here are a few benefits to implementing a water audits loss control program:

- Save water and energy. Water audits can guide leak detection and repair. Utilities pump less water when they reduce leaks resulting in energy and money savings.
- Recover lost revenue. Water audits can inform meter testing and replacement programs. Inaccurate meters usually run slower resulting in undercharging your customer. By replacing or repairing faulty customer meters, a utility can recover revenue that was previously lost.
- Defer new source development. Successful leak detection and repair can recover a large volume of leakage and reduce overall water demand. This may help to delay new source development until a later time.
- Become a steward of a precious resource. Utilities that proactively manage their system demonstrate leadership in the community and responsibility for protecting our most precious natural resource.

Why is Commission Doing This?

Public water systems (PWS) statewide deliver an estimated 250+ million gallons per day of potable water, about 90% of which is supplied by wells. It is an established fact that all drinking water systems have leaks, many of which go undetected. We estimate that very few drinking water utilities in Hawaii conduct AWWA water audits.

In 2015 the Commission began a targeted pilot program to train 15 Public Utilities Commission-regulated PWS on the AWWA methodology of water loss audits (at no cost to the PWS). This voluntary pilot program was comprised of three phases including an on-site system assessment by an expert contractor. This program was well received and successful in training on the concepts of water loss audits, use of the AWWA free water audit software, and making recommendations for the utilities to improve their data validity scores and to address water losses. A post-program survey of the participants showed that most of them had a positive learning experience and all respondents would recommend the program to other utilities. This pilot program demonstrated great potential for utilities to reduce real (and apparent) losses, which would realize immediate water savings and energy savings. There is a huge opportunity statewide for utilities to begin to assess the condition of their water systems based on input and output volumes using a standardized and industry accepted methodology.

The Commission’s pilot program yielded very interesting results and I would like to share just a couple of important discoveries regarding potential costs that could be recovered by utilities. Figure 1 shows the annual cost of apparent losses per connection for the 10 PWS (labeled A through J) covered under the Commission’s pilot water audit program. Note that this is mainly caused by customer meter error (under-registration) where water is valued at the retail rate. There is quite a large range of annual cost, but this is something that every utility should evaluate for themselves.

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Figure 1. Source: Training Workshop and Technical Assistance Program on AWWA Water Audit Methodology and Loss Control for PUC-Regulated Public Water Systems, Summary Report, 2016, CWRM

Figure 2 shows the annual cost of real losses per mile of main. These are mainly a result of physical leaks and the water lost is valued at the wholesale or variable production cost of producing the water. Once again there is a large range of potential savings if leaks are addressed (note that the lighter colored bars indicate that these utilities [A and B] are classified as urban, while the others are rural).

As mentioned above, Act 169 requires the Commission to develop and implement a water audit program while providing technical assistance to the affected utilities. The county-owned public water
systems are required to submit annual water audits to the Commission beginning July 1, 2018. The remaining public water systems serving a population of 1000 or more and public water systems in water management areas are required to submit annual water audits to the Commission beginning July 1, 2020. Hawaii Legislature authorized federal and private funding for this program, so the technical assistance and training will be provided free of charge to the utilities. Please visit the Hawaii State Legislature website to download and read the entire Act (http://www.capitol.hawaii.gov/session2016/bills/GM1271_.PDF).

How Will the Commission Implement This Program?
The Commission aims to partner with the Hawaii Department of Health and other organizations to form a collaborative water loss control committee to help guide the program. These organizations may include federal, state and county agencies, water supply utilities, water utility professionals, water loss control experts, Hawaii Rural Water Association, Rural Community Assistance Corporation and the American Water Works Association-Hawaii Section.

The Commission will hire a consultant to assist us with the water audit technical assistance and training program/project. We envision the project would be done in two phases. The first phase will focus on the county-owned utilities and the second phase will cover the remaining utilities. The Commission will host hands-on water audit workshops on each island followed by individual web meetings with each utility. A second workshop will address data validation, which will be again followed by a web meeting. By the end of this training, each utility will be able to complete an AWWA water audit for each of their public water systems and submit them to the Commission on an annual basis. We plan to start on this project in early 2017 and complete it by July 2020, when the second phase of water audits is due to the Commission.

In the upcoming months the Commission will continue to perform outreach and education on this new program leading up to the first water audit workshops in early 2017. Affected utilities will receive timely invitations to the workshops with detailed program information and schedule.

FAQ
How many PWS are affected by Act 169?
Approximately 103 PWS on all islands will need to complete water audits. This is 76% of the PWS delivering 90% of the state’s drinking water.

Who needs to submit AWWA water audits to the Commission?
All county-owned PWS, PWS serving a population of 1000 or more, and PWS operating in a designated water management area are required to submit annual validated water audits to the Commission. County-owned PWS water audits are due July 1, 2018. Water audits from PWS serving a population of 1000 or more and PWS operating in a water management area are due July 1, 2020.

What is a water management area?
The Commission has designated ground and surface water management areas where the water resources are threatened or where there are serious disputes. Additional management measures are required in these areas to protect the water resources. Current ground water management areas include all of Oahu except Waianae aquifer sector, all of Molokai and the Iao aquifer system system on Maui. Only Maui has surface water management areas, which encompass the Na Wai Eha region. This includes the Waihee, Waiehu, Iao and Walkapu surface water hydrologic units. Water use permits are required in all water management areas.

Who should attend the free training?
Suggested organizational units that should be represented include administration, operations, and finance/billing. Water system administrators and program managers responsible for source metering programs and customer metering/billing programs should attend in particular.

We sincerely hope that this brief program summary will help utilities begin to understand the importance and usefulness of AWWA water audits. We also hope that this will give you an idea of the legislative requirements, program elements and timing of the program delivery. Please contact Neal Fujii at 808-587-0264 if you have any questions. §
Life Member Status Award
30 cumulative years of membership and at least 65 years of age

Sidney W. Kent

Silver Water Drop Award
25 cumulative years of membership

Roy K. Abe
Daniel K. Bowles
Herbert W.L. Chang
Darwin K.W. Ching
Michael J. Chun
Duke H. Chung, Jr.
Howard K. Endo
Gregg Fujikawa
Barry Usagawa
Douglas L. Gomes
Stephen Green
Elson C. Gushiken
Daryl K. Hiromoto
Earl S. Ichimura
Dennis T. Imada
Bruce Inouye
Erwin M. Kawata
Paul J. Kemp
Ernest Y.W. Lau

John A. Linder
Sandra K. Moriki
Cory O. Okuda
Marshall L. Racune
Dean S. Shimizu
Fred A. Smith
Robert Strand
Patrick K. Sullivan
Jonathan M. Suzuki
Glenn Y. Suzuki
Lloyd S. Tanaka
Keith S. Uemura
Lori Lee Y. Ueno
Beverly G.I. Uhr
Susan S. Uyesugi
Michael L. Wegmann
Douglas I. Yamamoto
James H. Yamamoto
Lambert J. Yamashita

This year, AWWA changed the criteria of the Silver Water Drop Award from 30 years to 25 years of cumulative membership. In this transition year, AWWA provided the Silver Water Drop Award to all celebrating 25 to 29 years of membership.

Congratulations to all awardees for their continual AWWA membership!
AWWA Library

2011 Annual Conference - opening General Session videos
A Century of Safe Drinking Water
Activated Carbon: Solutions for Improving Water Quality
Avoiding Rate Shock: Making the Case for Water Rates
AWWA 2002 Annual Conference Videos
AWWA and the Consumer Confidence Report
AWWA M/DBP LT2 Stage 2 Training Toolkit
Backflow Prevention and Cross Connection
Basic Microbiology for Drinking Water Personnel, 2nd Edition
Careers in Drinking Water
Case Studies in Source Water Protection
Design and Construction of Small Water Systems
Developing Rates for Small Water Systems
Disinfectants and Disinfection By-products: Understanding the Proposed D/DBP Rule (2 tapes) with accompanying handbook
Disinfection of Pipelines and Storage Facilities Field Guide
Forecasting Urban Water Demand, 2nd Edition
Guide to the Filter Backwash Recycling Rule
Handbook of Public Water Systems, 2nd Edition
How Water Works - a Typical Water System Poster
How Water Works - an interactive Tour CD
How Water Works - Conventional Water Treatment Processes Poster
How Water Works - Residential Use
HWEA presents Water Recycling in Hawaii
Hydraulic Modeling and GIS
Inside the Weather
Introduction to QualServe
Lead and Copper Rule Compliance: How to Conduct a Corrosion Control Study (2 tapes) with accompanying handbook
Let's Talk Safety Talks
Modeling Water Quality in Distribution Systems, 2nd Edition
Natural and Engineered Solutions for Drinking Water Supplies
Operator Math Made Easy
Our Water Cycle DVD
Overview of Environmental Laws and Regulations
Plain Talk about Drinking Water - 5th edition
Planning for the Distribution of Reclaimed Water (M24)
Public Affairs for Water Utilities
Pump Selection and Troubleshooting Field guide
Safety First: Night Work
Safety First: Work Area Traffic Control
Safety Practices for Water Utilities
Secrets to Success: How to Prepare for Operator Certification
Seizing the Initiative: Section and Member Utility Involvement in the SDWA
The Business of Water: A Concise Overview of Challenges and opportunities
The Evolving Water Utility
The Importance of Utility Membership
Water Audits and Loss Control Programs 3rd Edition (M36)
Water Conservation Communications Guide
Water Conservation for Small and Medium-Sized Utilities
Water Conservation-Oriented Rates: Strategies to Extend Supply, Promote Equity, and Meet Minimum Flow Levels
Water Distribution Operator Training Handbook
Water Infrastructure at a Turning Point: The Road to Sustainable Asset Management
Water Main Disinfection and Dechlorination
Water Reuse for a Sustainable Future
We are AWWA
WSO: Distribution System
Committee Chairs 2016-2017

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The Hawaii Section of the American Water Works Association (AWWA) is currently seeking advertisers for its quarterly newsletter. Advertising provides a direct message to a population of over 600 members statewide who are in need of the products or services being advertised. Although we have switched to electronic distribution of the newsletter, we feel that there is still equal benefit to advertising in the electronic newsletter as with the printed newsletter. In addition, advertising in the electronic newsletter can be in full color.

Please be aware that advertising in the newsletter is available only to businesses related to the drinking water field. Please also note that all advertisements will be submitted for review and approval by the AWWA Hawaii Section Board of Trustees for ad content.

### APPLICATION FOR AWWA HAWAII SECTION NEWSLETTER ADVERTISING

**STEP 1 – FILL OUT ADVERTISING INFORMATION:**

Name of Organization: __________________________________________________________

Name & Title of Contact: ______________________________________________________

Address: __________________________________________________________________

Phone No. (    ) ___________________________  FAX No. (    ) ______________________

Email: __________________________________________________________________

**STEP 2 – NOTE SIZE OF ADVERTISEMENT AND NUMBER OF ISSUES:**

(    ) Size (item number)  (    ) Number of issues

**STEP 3 – SUBMIT PAYMENT:**

Make check payable to: **AWWA Hawaii Section**

AWWA Hawaii Section  
PO Box 22614  
Honolulu HI 96823-2614  
ATTN: Audrey Yokota

**STEP 4 – SUBMIT ADVERTISEMENT:**

Advertisement shall be submitted to:

Susan Mukai  
Phone: (808) 203-2667  
Email: smukai@brwncaid.com
Production Information Newsletter

The American Water Works Association Hawaii Section newsletter is published to inform its members of Section and International AWWA activities, meetings, educational opportunities and other matters of interest to the water community. The mention of trade names for commercial products does not represent or imply an endorsement by AWWA Hawaii Section.

Editor of this Issue:
Susan Mukai
c/o Brown and Caldwell
737 Bishop Street, Suite 3000
Honolulu, HI 96813
Email: smukai@brwncald.com

Hawaii Section Website

The Hawaii Section is in the process of creating a new website. We will notify members when the website is up and running. Until that time, please refer to our Facebook page for updates. https://www.facebook.com/AWWAHI

Newsletter Articles

AWWA members are welcome to submit articles for the Newsletter. Please contact Susan Mukai at smukai@brwncald.com for information.

Submissions for the Fall Newsletter are due by Friday, November 11, 2016.

Upcoming Calendar of Events

November 2-4, 2016
HWWA and HRWA Conference and Exposition
Wailea Beach Marriott Resort
Maui, HI

December 1-2, 2016
AWWA/HWEA/ASCE Water Reuse Conference
Aqua Kauai Beach Resort
Lihue, HI

December 5-6, 2016
RMSO Western Region V
Hilton Hawaiian Village
Honolulu, HI

February 14-16, 2017
2017 Pacific Water Conference
Hawaii Convention Center
Honolulu, HI

February 17, 2017
Pacific Water Conference Golf Tournament
Ala Wai Golf Course
Honolulu, HI

February 18, 2017
Pacific Water Conference Community Service Event
TBD
Honolulu, HI