

2020 Pacific Water Conference

*By Jessica Agsalda
At-Large Trustee, Annual Conference*



Thank you to everyone who attended the 2020 Pacific Water Conference! We had another great turnout with 780 registered attendees and 125 exhibitor booths.

Planning for the Pacific Water Conference starts in June of the prior year and continues up until conference with meetings every month to plan out technical sessions, food and refreshments, publications, a golf tournament, and much more. The committee is made up of about 35 volunteers from both the public and private sectors, and each volunteer puts in a lot of hard work on his or her own time. In addition to these committee members, we have day-of volunteers who help with registration and moderating technical sessions and sponsors who contribute to the conference event. Thank you to the conference committee and all the volunteers and event sponsors for making the conference a huge success!

The Tuesday Pre-Conference was attended by about 250 people and featured five tracks: 1) Water Operators, 2) Wastewater Operators, 3) Wastewater Treatment, 4) Young Professionals and 5) One Water. The One Water track was featured for the first time this year and focused on water reuse and how coastal US cities are dealing with the effects of climate change.

Inside This Issue

2020 Pacific Water Conference	1
Chair's Message	4
Board of Trustees	4
Director's Message	5
Student Scholarship Recipients	9
Fuller Award Recipient	10
Water for People Update	11
What Makes a Utility Resilient	12
Young Professionals Update	16
Be Disaster Resilient and Ready	18
Newsletter Advertising	21
New AWWA Hawaii Section Members	22
2020 Membership Tenure Awards	23
AWWA Library	23
Committee Chairs	25
Upcoming Calendar of Events	26

2020 Pacific Water Conference, continued from page 1



Joshua Stanbro speaking during the opening session.

Our keynote speaker, **Joshua Stanbro**, Chief Resilience Officer and Executive Director of the City and County of Honolulu's Office of Climate Change, Sustainability and Resiliency, opened the conference on Wednesday morning

and spoke of the effects of climate change in Hawaii and the importance of water sustainability in the years ahead.

This year, the AWWA Hawaii Section welcomed AWWA's Treasurer, **Aurel Arndt**, and his wife, **Jane**, to our conference all the way from Philadelphia. The Section held its visiting officer reception on Tuesday evening. Thank you to Chair, **Kevin Ihu**, for planning a wonderful event.



AWWA's Treasurer, Aurel Arndt, speaking at the Installation Reception.

The AWWA Hawaii Section was proud to give out three student scholarships at conference this year. The scholarship recipients were



Juanita Reyher-Colon, Jessica Agsalda, and Joanna Seto

Nicholas Ali, Kylie Ginoza, and Miki Kawahara. The section also awarded two Outstanding Section Member Awards and one Special Recognition Award to **Jessica Agsalda and Juanita Reyher-Colon, and Joanna Seto**, respectively.

continued on page 3



Left: Student scholarship recipients Nicholas Ali, Kylie Ginoza, and Miki Kawahara (not pictured) and their parents, with AWWA-HI Scholarship Committee Chair, Jeffery Pearson.

Right: AWWA-HI Chair, Kevin Ihu, saying hello to AWWA's Eddy, the water drop, and WEF's Niles, the crocodile.

The conference's main events were concluded with an Officer Installation Banquet where the George Warren Fuller Award recipient was announced. The Fuller Award, presented annually by AWWA to the sections' respective members for their distinguished service to the water supply field, was awarded to **Jeffrey Pearson**, the Director of the County of Maui Department of Water Supply. Congratulations to all our scholarship and award recipients!

To close out the conference, a Golf Tournament at Hawaii Prince Golf Course was held on Friday, and a Community Service Event at Ho'okua'aina Lo'i at Kapalai in Kailua on Saturday.

Mahalo again to all our attendees, vendors, sponsors

and volunteers! We hope to see you all again next year. Save the date: 2021 Pacific Water Conference will be held at the Hawaii Convention Center on February 3-4, 2021. §



Officer installation at Thursday's banquet



Chair's Message

By **Kevin Ihu**
Hawaii Section Chair

Aloha Kakou! The 7th Annual Pacific Water Conference (PWC) took place a few days after the NFL Championship game. Unlike the game, the conference was a success! The collaborative effort of the AWWA Hawaii Section and the Hawaii

Water Environment Association (HWEA) has once again resulted in a productive, educational and enlightening event. The attendance numbers remained high thanks to the very hard work of the Conference Committee led by the AWWA Conference Chair **Jessica Agsalda** and HWEA Conference Chairs **Ken Kawahara** and **Amanda Tanaka**. Big thanks and congratulations go out to them and all that helped or supported them.

This year we were very fortunate to have **Aurel Arndt** and **Tom Kunetz** join us at the conference as the AWWA and Water Environment Federation (WEF) visiting officers respectively. Aurel spent over 40 years in the water industry at Lehigh County in Pennsylvania. He is completing his fourth and final year as Treasurer of the AWWA. Tom is the immediate past president of WEF and his passionate opening session speech energized the room to help kick off the conference. Big mahalo to both of them for making the trip!

Aurel's and Tom's presence and participation in the Pacific Water Conference puts into perspective how important collaboration and networking with local sections are to the organizations. AWWA Hawaii is a small section but will receive just as much benefit or can make just as big a contribution as any other section. That is possible because of the tremendous support the section receives from the association and

continued on page 6

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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.

continued on page 5

continued from page 4

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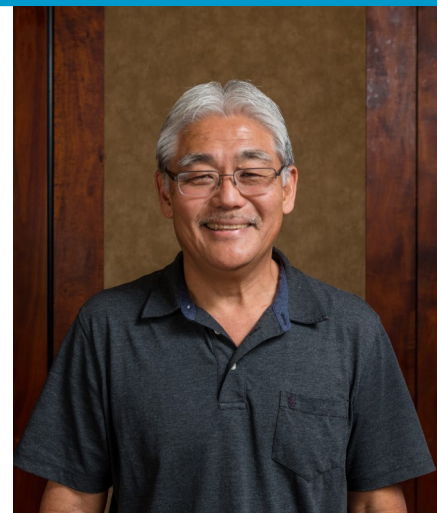
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Director's Message

By *Daryl Hiromoto*
Hawaii Section Director



On January 24-25, 2020, In-Coming Director **Juanita Colon** and I attended the 2020 Winter Board Meeting in San Juan, Puerto Rico. The majority of the Directors across the continent were extremely happy to be in Puerto Rico. Personally, I couldn't get too excited being somewhere even hotter and more humid than Hawaii!

As mentioned, Jaunita was able to attend the meeting with me. I can remember my first winter meeting in Scottsdale, AZ, where I shadowed **Ken Ota** as incoming director. It seems so long ago and yet I remember it very clearly. I'm excited for Juanita and her opportunity to be involved at the Association level. There's so much to learn and experience, and it is a privilege to be associated with so many water professionals from all parts of AWWA.

Here are some of the highlights of the Winter Meeting:

Strategic Plan Report Out.

- 2019:
 - Membership stands at 52,073 (first time above 52,000 in more than 5 years)
 - Financial Performance: Strong ending year with net operating income \$1 million over budget

continued on page 7

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.

the tireless dedication of our members.

Those that have attended the respective associations' annual conferences, AWWA Annual Conference & Exposition (ACE) and Water Environment Federation Technical Exhibition & Conference (WEFTEC), have experienced what collaboration at that big of a scale feels like and what it can result in. The excitement and enthusiasm at those conference events reinvigorates all attendees who leave the conference with a better big picture perspective of the water industry. ACE this year will be in Florida which is a long, hard trip for many of us; but if you get the opportunity to attend, I highly recommend you do not pass it up. The trip will be a worthwhile and inspirational experience that you will never forget.

The national and local conferences are the highlight of the many benefits that come with AWWA membership. Some involved members that could share more insight on the benefits of membership are:

- **2020 AWWA Fuller Award recipient – Jeff Pearson**
Jeff is Director of the Department of Water Supply but still finds time to be an active section volunteer as the Scholarship Committee chair. He has been an active volunteer since 2003 and served as Vice Chair, Chair and Past Chair from 2014 through 2017.
- **2020 Special Recognition Award recipient – Joanna Seto**
Joanna is Chief of the Safe Drinking Water Branch of DOH. She is a past Fuller Award recipient, has been an active volunteer since 2011 and served as Vice Chair, Chair and Past Chair from 2013 through 2016. She is currently the Website Committee chair and has done a great job keeping the website updated allowing easy and quick access to important Section information.
- **2020 Outstanding Section Member Award recipient – Juanita Colon**
Juanita is a Source Water Specialist for the Hawaii Rural Water Association and has been an active volunteer since 2011. She is also a past Special Recognition Award recipient and served as Vice Chair, Chair and Past Chair from 2016 through 2019. She became the section's Treasurer last year and will take on the role of Director replacing **Daryl Hiromoto** on June 1st this year.
- **2020 Outstanding Section Member Award recipient – Jessica Agsalda**
Jessica is a project engineer for the Limtiaco Consulting Group and has been an active volunteer since 2015. She is currently an At-Large Trustee, Annual Conference chair and the Youth Education Committee chair. She has taken on multiple volunteer roles yet still manages to get her day job done.

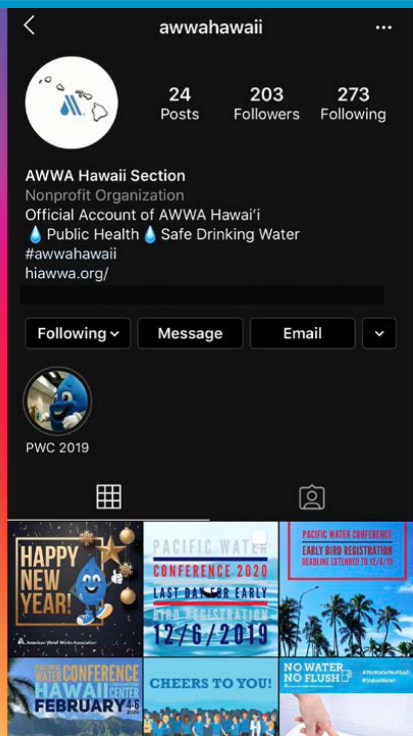
Big congratulations to the 2020 award recipients; if you see them around, ask them about their experiences as Section volunteers. Also, let them or any other hard-working Section volunteer that you know if you have an interest in volunteering. We are always encouraging people to get involved. I am sure you will not be disappointed, and the experience will be enlightening and fulfilling. Hope to see most of you at ACE in June!
§

- Business Plan Accomplishments include: strong ACE19 and Fly-In, Association-Section Affiliation Agreement refreshers, Advancement of communities of interest (Finance, legal, IT), Securing over \$2 million in grant funds for small system training, Addition of AWWA Training Services, PFAS report, LCR updates, and AWIA tools
- 2020:
 - Membership evaluate an enterprise membership model
 - Updated Strategic Plan
 - Business Plan Goals:
 - Envoi access, video streaming additions, Exam Prep adds a wastewater package
 - Association-Section Business Model focus continues, Section leadership training offered, collaboration guidelines provided
 - Develop a strategy that helps utilities build public trust in water
 - Developing a Grants Management / capacity strategy
 - LCR and PFAS

Election results:

- President-Elect - **Dr. Chin Ho Sham**, NEWWA Section. His term as president-elect begins in June at the conclusion of AWWA's Annual Conference & Exposition in Orlando, Fla.
- Vice Presidents (3) - **Jennifer Elms** of the Texas Section; **Dr. Stephen Randtke** of the Kansas Section; and **Patrick Staskiewicz** of the Michigan Section.
- Director-At-Large - **Michelle Stockness** of the Minnesota Section.
- Service Provider Director-At-Large - **Corianne Burnett** of the Pacific Northwest Section

The next board meeting will be held in Orlando, FL at ACE 20. §



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Student Scholarship Recipients

By Jeffrey Pearson
Scholarship Committee Co-Chair



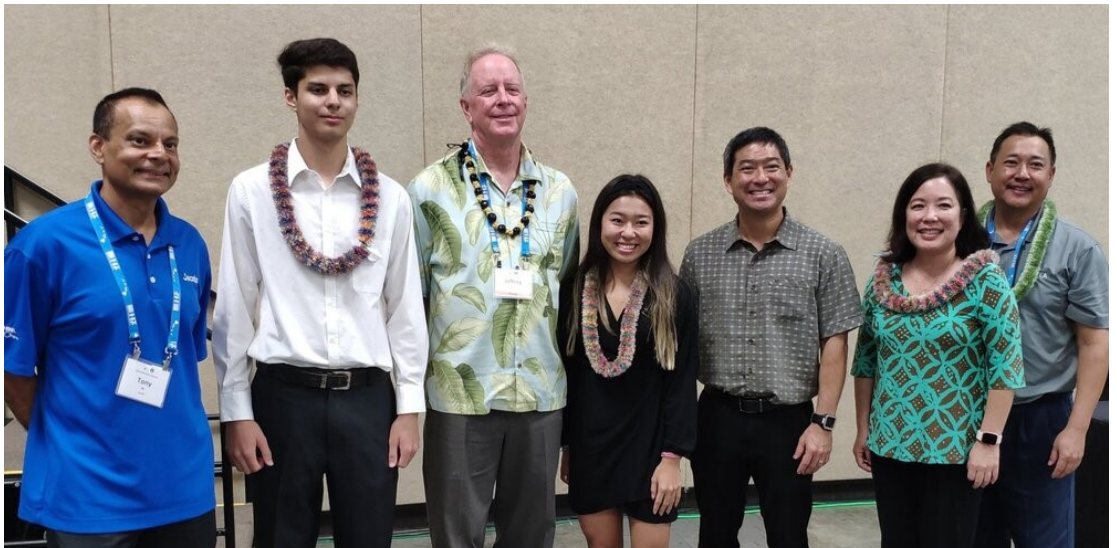
At our Pacific Water Conference luncheon held February 5, 2020, three students, two high schoolers, and one college student received \$3,000 scholarships. This year there were eight applicants, where these 3 stood above the rest. Our executive committee reviewed the eight applications and could not just give out two scholarships that we offer every year. Congratulations to **Nick Ali**, **Kylie Ginoza**, and **Miki Kawahara**.

Nicholas is the son of AWWA-Hawaii Section Member **Tony Ali** and wife **Carolyn Ali**. He is a senior at Saint Louis High School where he was on the lacrosse team, debate team, math team and a member of various clubs. Nicholas is interested in the communication and reliability of Electrical Engineering. He is inspired by Elon Musk. He has applied to University of California - Berkeley, UC - Irvine, and UCLA.

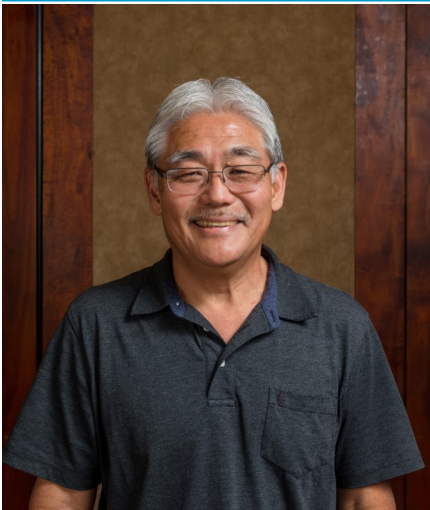
Kylie is the daughter of AWWA-Hawaii Section Member **Kyle Ginoza** and wife **Kim Ginoza**. She is a senior at Maui High School. She has applied to the University of Hawaii at Manoa to study biology (pre-med) or dermatology or engineering. Kylie's interests include soccer, golf, swimming, diving and 4H. Her hobbies are working out, going to the beach and enjoying family, including Champ, their beagle.

Miki is the daughter of AWWA-Hawaii Section Consultant Trustee **Ken Kawahara** and wife **Wendy Kawahara**. After graduating from Iolani School, she enrolled at Butler University, in Indiana, where she is in her sophomore year. She is studying health sciences, with minors in Chemistry and Psychology. She will be applying for a Physician Assistant graduate program. Her interests include her sorority, being a student orientation guide, and advocating for the Riley Children's Hospital.

It is always exciting to see such bright and talented young people at the beginning of an exciting college and professional career. Join me in congratulating all of them. I know great things are ahead in their future. §



L-R: Tony Ali, Nicholas Ali, Jeff Pearson, Kylie Ginoza, Kyle Ginoza, Wendy Kawahara and Ken Kawahara



Fuller Award Recipient

By Daryl Hiromoto

The George Warren Fuller Award is presented annually by the American Water Works Association to the Sections' respective selected member for their distinguished service to the water supply field in commemoration of sound engineering skill, brilliant diplomatic talent, and constructive leadership which characterized the life of George Warren Fuller.

The 2020 Fuller Award-Jeffrey Pearson has a very distinguished career in the water industry, and he continues to be active in the Hawaii Section as a volunteer.

- 2003-2008 Committee Chair-Operator Training
- 2010-2014 Trustee At-Large
- 2013-2014 Incoming Chair
- 2015-2016 Chair
- 2016-2017 Past Chair
- 2017-Present Committee Chair-Scholarship

Jeff is known by those that work with him as a very gregarious individual in and out of work. His wife, Annette, has said in the past that it's the reason she was attracted to him, because he was funny. There is a "kolohe" side to him.



Fuller Award Winners (L-R): 2019 Joanna Seto, 2007 Susan Uyesugi, 2020 Jeff Pearson, 2013 Daryl Hiromoto, 2004 Ray Matasci

In the workplace, Jeff is a very humble individual and is always willing to provide assistance when needed. When obstacles occur, he's never deterred and will find ways to get things done. His humble nature also makes Jeff very approachable to those that work with him and they feel very comfortable with going to him for help.

His work experience includes: Deputy Director at the Hawaii Department of Land and Natural Resources, Commission on Water Resource Management; Maui Land and Pineapple; Capital Improvement Projects Coordinator, Deputy Director, and currently the Director of the County of Maui Department of Water Supply. Jeffrey Pearson's dedicated service to the Hawaii Section and his leadership in the water industry has made him worthy of the 2020 George Warren Fuller Award. Congratulations, Jeff! §

Water for People Update

By Adrienne Fung
Water for People Committee Chair



We had a great time seeing everyone at the 2020 Pacific Water Conference! Our booth received over \$200 in donations for Water For People (WFP). We saw both familiar and new faces who came by to encourage WFP's mission or to learn more about the organization. Thank you to all those who visited. Furthermore, thank you to our volunteers at the booth, who graciously donated their time or raffle prizes.

The WFP Committee also organized a panel, Superheroes in the Water Crisis: Forum on Reliable Water and Sanitation Services. We were excited to have as our panelists, **Georgia David**, Community Engagement Manager at WFP; **Paul Kemp**, Assistant General Manager of the Guam Waterworks Authority; and **Barry Pollock**, Rural Development Specialist - Engineer of the Rural Community Assistance Corporation. They shared ideas about priorities in the water and sanitation industry, stories about previous WFP projects in the Pacific, and actions for now and the future.

Georgia was the Thursday lunch speaker and shared what makes WFP's model unique, such as co-investment with communities and annual monitoring for a minimum of 10 years. She also shared the awesome news that San Pedro, Bolivia has recently reached its Forever Milestone, meaning that they are now maintaining water service (operation, investment, and monitoring) without WFP aid. What an incredible feat! It was a journey of about 15 years, but the community now has safe drinking water services accessible to, and maintained by, community members.



Left: WFP Committee volunteers Mike Tallering and Greg Arakaki (left to right) showcasing the WFP booth.

Right: Panelists Barry Pollock, Paul Kemp, and Georgia David and moderator Adrienne Fung (L to R) getting ready for the forum.

We're working on our upcoming event! If anyone is interested in getting involved, feel free to email me. §

What Makes a Utility Resilient?

By Kevin M. Morley

AWWA Federal Relations Manager at the Association's Government Affairs office in Washington, D.C.

Resilience is defined by an array of indicators that characterize a desired end state or goal. According to Section 2013 of America's Water Infrastructure Act (AWIA) of 2018, resilience is the "ability of a community water system or an asset ... to adapt to or withstand the effects of a malevolent act or natural hazard without interruption to the asset's or system's function, or if the function is interrupted, to rapidly return to a normal operating condition." AWIA requires community water systems serving populations of 3,300 or more to perform two tasks: (1) conduct a risk and resilience assessment and (2) prepare or revise an emergency response plan on a prescribed schedule every five years, starting in 2020. For more information, see Priority Action on Risk and Resilience, Journal AWWA, February 2019 (<https://doi.org/10.1002/awwa.1229>).

Drinking water and wastewater systems have been designed to be resilient given the critical functions they provide to the communities they serve. However, various incidents have revealed the need for a more strategic perspective to resilience that goes beyond some of the tactical actions typically defined in an emergency response plan. This need led to the development of the Utility Resilience Index (URI) as a means to provide an all-hazards, system-level assessment of resilience.

PUTTING THE URI INTO PRACTICE

The URI is based on 12 indicators of resilience that a utility can readily and quickly assess to determine where potential gaps or opportunities exist to improve its capacity to respond and recover from an incident. These resilience indicators were selected based on findings from historical records, after-action reports, best practices, and lessons learned from multiple incidents. When considered as a whole, the indicators provide a snapshot of a utility's resilience capacity.

The URI includes two classes of indicators that either affect utility functions or the community served:

- Operational (O) indicators reflect the utility's tactical capacity to react quickly and/or cope with various incidents that have the potential to disrupt service.
- Financial (F) indicators reflect the utility's fiscal capacity to react quickly and/or cope with various incidents that have the potential to disrupt revenue and costs.

Let's apply the URI to a medium-size mid-Atlantic utility that is considering AWIA and what actions may be beneficial after some close calls in recent years. The utility's manager inputs the utility profile to the URI and finds the utility scored a 44 out of 100. What does that mean? It means there is a lot of opportunity for improvement, including accepting certain limitations that should inform strategies for alternatives, as it may not be feasible to "fix" all the limiting indicators. Consider the following URI inputs, as reflected in the accompanying table:

continued on page 13



Port Aransas, Texas, suffered severe damage during Hurricane Harvey in 2017. A San Antonio Water System crew was thanked by a Port Aransas resident for restoring water to the community (inset). TXWARN fielded, responded to, or coordinated Hurricane Harvey response and recovery requests from more than 50 utilities.

O1: Emergency Response Plan (ERP) shows that while the utility has a plan, it hasn't been exercised with tabletop or functional exercises. In addition, the utility hasn't prepared any resource typing for its system that could help the utility's staff determine what they may need to request from others and what they may be able to provide others during an incident. This is all about pre-incident planning and preparedness, which reduces the stress and chaos associated with an actual incident. Training, exercises, and resource typing are examples of strategies, plans, and procedures that support the intent of AWIA's ERP provisions. For more information, download AWWA's new Water Sector Resource Typing Guidance manual at <https://bit.ly/2G7hczw>.

O2: National Incident Management System (NIMS) Compliance is voluntary, but it's an eligibility requirement for certain federal homeland security grant programs. The utility has participated in basic awareness training available from the Federal Emergency Management Agency and the US Environmental Protection Agency (USEPA). However, staff who are most likely to lead (i.e., the incident commander) would benefit from higher-level training to facilitate engagement with other stakeholders during a significant incident. Understanding the process for incident management tracking and documentation pre-incident is much better than learning it while trying to manage an emergency.

O3: Mutual Aid and Assistance has been critical to water-sector resilience for years. The value of these agreements has been demonstrated time after time, spanning myriad incidents from hurricanes to earthquakes to blizzards. This utility is part of its state's Water/Wastewater Agency Response Network (WARN), which provides state-level support and means by which interstate mutual aid can be facilitated.

O4: Emergency Power for Critical Operations is often the rate-limiting factor in recovery following an incident that affects power supply. This utility reports the ability to sustain power for critical operations for up to 24 hours, which is likely

continued on page 14

limited by fuel capacity. Regulation can also hamper investment in backup power generators, as their use during nonemergency periods often triggers stringent Clean Air Act limits. The cost of generators has made them a key shared resource among WARN utilities, especially in regions depending on multiple booster pump or lift stations.

O5: Ability to Meet Minimum Daily Demand or Treatment is at the core of a utility's function. In the case of a drinking water system, how long can typical daily demand be sustained? The answer depends on a combination of finished water storage and, where applicable, the ability to service customers with gravity. Whatever the threshold, this represents a critical planning decision point at which alternative water supply options may become necessary. This is one of the new provisions in AWIA that a utility is expected to determine. Resources such as the USEPA's report *Planning for an Emergency Drinking Water Supply* (<https://bit.ly/32zADLO>) can be used to assess options and consider how distribution would be achieved in coordination with state/local partners. In less than 24 hours this utility would be in crisis, which could be caused by source water contamination, cyanotoxins, or the plant's physical impairment from a natural or man-made incident. This low threshold suggests that some critical planning is needed to ensure options to mitigate the impacts on the community are developed and ready to be implemented if necessary. AWIA requires systems to develop alternative source water options.

O6: Critical Parts and Equipment is an important factor in recovery, especially in this era of just-in-time delivery. A robust asset management program may aid a utility considering this indicator. This utility has a moderate maintenance yard with a limited stock of critical spares, meaning it could take several weeks to locate and deliver a replacement. Mutual aid has facilitated the location and delivery of unique parts. It's important to consider these limitations within a risk and resilience assessment, and staff knowledge should support preparation of a "what if" strategy if a spare part isn't economically feasible. Resource typing can also help a utility assess the limitations of its capacity to assist others and identify resources it may need to request.

O7: Critical Staff Resilience is the percentage of response-capable staff available for critical operations and maintenance positions who have cross-trained backups. Given the size of this utility, there is a fair amount of cross-training—likely out of necessity. Utilities that have prepared for staffing outages for pandemic planning or work stoppage may have a higher level of capability in this category.

F1: Business Continuity Plan (BCP) provides an indication of the integration of risk management into the utility's culture. A BCP is often where/how a utility has addressed some level of cybersecurity risk management as part of a disaster recovery plan. In addition, a BCP is typically where continuity of enterprise functions like payroll and accounting are documented. This utility hasn't developed a BCP, suggesting there is likely a need to address critical AWIA provisions related to securing cyber assets and financial infrastructure.

F2: Utility Bond Rating indicates a utility's financial stability and capacity to repay debt. This utility has received a good rating from an independent bond agency, and the utility's fiscal health is sound.

F3: GASB Assessment entails determining how the utility has evaluated its infrastructure risk. Specifically, it determines how much of the system has undergone a condition assessment to evaluate the remaining life of its assets so rehabilitation

continued on page 15

and replacement investments can be properly considered with financial risk management plans. This utility has assessed a small proportion of its system, meaning it doesn't have a complete estimate of prospective future financial obligations.

F4: Unemployment and F5: Median Household Income are included to reflect the capacity of the community to react quickly and/or cope with various incidents that have the potential to disrupt utility revenue and/or influence operational response. Research has demonstrated that communities with high levels of unemployment and low median household income are more vulnerable. Although a utility can't directly alter such measures, it can provide key indicators of the potential impact a loss-of-service incident may have on the population served.

Utility Resilience Index (URI) Worksheet

The URI is the product of the weighting developed for each indicator (V_j) and the maximum value indicated in the utility profile (w_j).

Utility Resilience Indicators (j)	Utility Profile	w_j	V_j	$MAX w_j V_j$	Utility Resilience Indicators (j)	Utility Profile	w_j	V_j	$MAX w_j V_j$	Utility URI
O1: Emergency Response Plan (ERP)			0.1389	0.0347	F1: Business Continuity Plan (BCP)			0.0463	0.0000	
No ERP		0.00			No BCP	x	0.00			
ERP developed and/or updated	x	0.25			BCP under development		0.25			
Staff training on ERP (i.e., Tabletop)		0.50			BCP completed		0.50			
Resource typed assets/teams defined and inventoried		0.75			BCP fully implemented		0.75			
Functional exercises on the ERP conducted		1.00			Annual commitment of resources and BCP exercised		1.00			
O2: National Incident Management System (NIMS) Compliance			0.1561	0.0781	F2: Utility Bond Rating			0.064	0.0480	
No ICS/NIMS training		0.00			Ca _a , less than or equal to		0.00			
ICS 100/200 provided to key staff	x	0.25			B-Ba		0.25			
ICS 700/800 provided to key staff	x	0.50			Baa-A		0.50			
ICS 300/400 provided to key staff		0.75			AA	x	0.75			
Utility certified as NIMS compliant		1.00			AAA		1.00			
O3: Mutual Aid and Assistance			0.1868	0.1401	F3: GASB Assessment			0.0176	0.0044	
None		0.00			Less than 20% assessed		0.00			
Mutual aid/intramunicipal (within own city/town agencies)		0.25			20–40% assessed	x	0.25			
Mutual aid/local-local (with adjacent city/town)		0.50			41–60% assessed		0.50			
Mutual aid/intrastate (e.g., Water/Wastewater Agency Response Network [WARN])	x	0.75			61–80% assessed		0.75			
Mutual aid/interstate and intrastate		1.00			Greater than 81% assessed		1.00			
O4: Emergency Power for Critical Operations			0.0595	0.0149	F4: Unemployment			0.0459	0.0115	
None		0.00			>5% national average		0.00			
Up to 24 hrs	x	0.25			>2–4% national average	x	0.25			
25–48 hrs		0.50			±2% national average		0.50			
49–72 hrs		0.75			<2–4% national average		0.75			
Greater than or equal to 73 hrs		1.00			<5% national average		1.00			
O5: Ability to Meet Minimum Daily Demand (Water) or Treatment (Wastewater)			0.0966	0.0483	F5: Median Household Income			0.04	0.0100	
None		0.00			<10% state median		0.00			
Up to 24 hrs		0.25			<5–10% state median	x	0.25			
25–48 hrs	x	0.50			±5% state median		0.50			
49–72 hrs		0.75			>5–10% state median		0.75			
Greater than or equal to 73 hrs		1.00			>10% state median		1.00			
O6: Critical Parts and Equipment			0.0878	0.0220						44.2%
3–4 weeks or greater		0.00								
1 – <3 weeks	x	0.25								
3 – <7 days		0.50								
1 – <3 days		0.75								
Less than 24 hrs		1.00								
O7: Critical Staff Resilience			0.0605	0.0303						
<10%		0.00								
10–25%		0.25								
>25–50%	x	0.50								
>50–75%		0.75								
>75–100%		1.00								

Source: Morley, Kevin. Evaluating Resilience in the Water Sector: Application of the Utility Resilience Index (URI), PhD diss. George Mason University, 2012.

LOOKING AHEAD

Collectively, the URI provides a utility with a high-level assessment of its general resilience status. Preparing the URI is also a good opportunity to consider risk and resilience management options to ensure AWIA compliance. Also, AWWA has developed free training on AWIA and offers resources that facilitate compliance, all of which are part of the association's Utility Risk & Resilience Certificate Program (www.awwa.org/risk). §



Young Professionals Update

By Daniel Koge

Young Professionals Committee Co-Chair

Whew, what a busy past couple of months the young professionals (YP) have had; what better way to get involved and start a new decade than with conference and community service!

To kick off the 7th Annual Joint AWWA/HWEA Pacific Water Conference (PWC) some of our members attended the Young Professionals Pre-Conference. YPs participated in a panel discussion on the differences between the public and private sectors, received quick lessons on proper permitting and special inspections, and gained insight on workplace generational differences, managing work-life balance, and dealing with unexpected changes in career paths. YPs pre-conference social at Minori was also a hit; thanks to Social Chair **Calvin Ing**, many attendees came out to socialize, learn about our organization, and see how they could get involved with our other events.

Throughout the rest of PWC, YPs had opportunities to attend sessions and learn about technological and research advancements within the industry (awesome presentation, YP volunteer chair **Brittany Cody!**), volunteer alongside other AWWA-HI and HWEA members, socialize in person with people they only knew previously through emails, win some awesome raffle prizes, and even snap a few pictures with distinguished out-of-town guests.

After an enjoyable week at PWC, our YPs had the opportunity to soak in the sunshine and play in the mud. At Ho'okua'aina, located in Maunawili, people of all ages had their own kuleana. Whether it was hauling away debris, clearing weeds, or catching frogs the group spent Saturday morning bonding as a water professional community. The group was able to tackle a whole patch before lunch but not without getting muddy from head to toe! Although we spend our typical working hours maintaining the water system while enjoying the end result, we must always have respect for the natural watersheds.



Daniel Koge with Niles the Crocodile and Eddy the Waterdrop at the Pacific Water Conference.

YP's very own Secretary **Jeff Onaga** was involved with planning the PWC and had this to say about his experience:

continued on page 17

“As a member of the PWC Technical Program Committee, we were responsible for developing a program for the three-day conference, coordinating with speakers and moderators during the conference, and managing CEU credits for attendees. As a previous attendee of the PWC, I didn’t realize how much planning and coordination needed to be done for the conference to run smoothly and this gave me a deeper appreciation for all the volunteers that devote their time to put conferences like these together. Although the work was



YPs and other volunteers at the Pacific Water Conference volunteer event.

exhausting at times, I am grateful for the experience and enjoyed getting to know new people and reconnecting with friends/colleagues. I am certain that I will continue to volunteer at the conference in the future and hope that anyone who is also interested will contact their local conference chairs”

Good job Jeff and thanks to the rest of conference committee for making it a success!

We have some exciting events coming up and want to invite everyone to participate! YP is hosting a WEFMAX YP Summit on Wednesday, April 15th at Ala Moana Hotel from 8:00am to 4:30pm. Our tentative agenda includes an engaging personal and professional communication skills workshop followed by lunch and YPs own personal tour of the City’s solid waste disposal services in a Tour de Trash. If you’re interested in participating/volunteering, please contact [Daniel Koge](#). Other upcoming events include a volunteer project in March as well as a general meeting/thank-you dinner in April. Your attendance is greatly appreciated and welcomed!

Finally, in the next few weeks, YP chair **Kathryn Yoshimura** and co-chair **Daniel Koge** will be representing Hawaii at this year’s WEF/AWWA YP Summit in Anaheim, CA. At this annual workshop and training conference, our officers will have the chance to collaborate and network with other YPs from across the pacific region, so keep an eye out for an exciting report on the summit and more in the next article! §

Be Disaster Resilient and Ready

By Karen Edwards-Lindsey

U.S. Environmental Protection Agency, Office of Water, Water Security Division

Hawaii is an island paradise, but one that is at risk from natural disasters that can endanger people, property, and critical infrastructure. For example, drinking water systems provide a community service that is essential to everyday life. In Hawaii, drinking water services can be disrupted by floods, hurricanes, tsunamis, volcanic eruptions, and earthquakes. While any natural disaster can be overwhelming, you can take steps to prepare your utility and community in advance.

America's Water Infrastructure Act – Section 2013 Requirements

One of the first steps is to conduct a detailed assessment of your risks. If you have not completed or updated your risk assessment already, you may be required to do so under the America's Water Infrastructure Act (AWIA). Section 2013 of the Act requires Community (drinking) Water Systems (CWSs) serving more than 3,300 people to develop or update a Risk and Resilience Assessment (RA) and Emergency Response Plan (ERP). The law includes the components that the RAs and ERPs must address and establishes deadlines by which water systems must send a certification of completion to the United States Environmental Protection Agency (U.S. EPA). The certification deadlines are based on system population size reflected in the Safe Drinking Water Information System (SDWIS) as of the law's date of enactment on October 23, 2018. Systems serving a population 100,000 or greater must certify completion of the Risk and Resilience Assessment no later than March 31, 2020. Systems serving population sizes of 50,000 to 99,999 must certify completion no later than December 31, 2020, and systems serving populations of 3,301 to 49,999 must certify no later than June 30, 2021. Within six months of certifying completion of the Risk and Resilience Assessment, water systems must also certify completion of the ERP. AWIA requires systems to consider factors such as monitoring practices, financial systems, chemical storage, and operations and maintenance in their RAs. For the ERP, AWIA requires utilities to include items such as strategies and resources to improve resilience and procedures to lessen the impact of malevolent acts or natural hazards. See the following webpage for more information and details about AWIA - <https://www.epa.gov/waterresilience/americas-water-infrastructure-act-risk-assessments-and-emergency-response-plans>

AWIA Compliance Resources

The U.S. EPA has developed a suite of tools to help you comply with AWIA. The first tool is the [Vulnerability Self-Assessment Tool \(VSAT\) Web 2.0](#). This Tool is a risk assessment application for water, wastewater, and combined utilities of all sizes. Using VSAT Web 2.0, water systems in Hawaii can assess their vulnerabilities to both man-made and natural hazards and evaluate potential improvement opportunities to enhance their security and resilience. The Water Health and Economic Analysis Tool (WHEAT) within VSAT Web 2.0 quantifies public health impacts, utility financial costs, and regional economic impacts of an accidental or adverse event.



A second resource developed to help CWSs conduct a RA is the [Baseline](#)

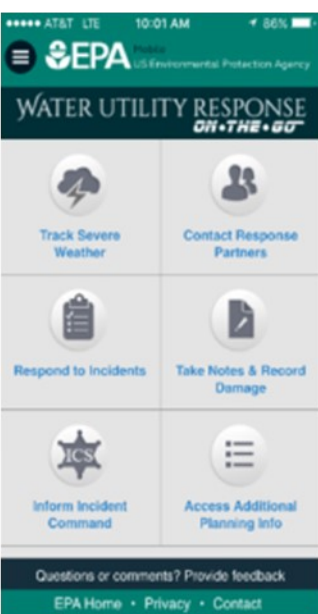
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[Information on Malevolent Acts for Community Water Systems](#). This document assists CWSs in identifying the types of malevolent acts that could impact them and assist with estimating the threat likelihood of such acts.

The U.S. EPA also developed a resource to help CWSs comply with the AWIA ERP requirement. The [ERP Template and Instructions](#) describe strategies, resources, plans, and procedures utilities can use to prepare for and respond to an incident, natural or man-made, that could disrupt essential water services. The findings identified in your RA will enhance the effectiveness of your ERP. Incidents can range from small water main breaks or localized flooding to large scale hurricanes, earthquakes or system contamination. The resource features a blank ERP template that can be easily accessed and modified by utility personnel to meet their own water system needs. <https://www.epa.gov/waterutilityresponse/develop-or-update-drinking-water-utility-emergency-response-plan>

Other Resources

After assessing risks and developing strategies to improve resilience through a RA and ERP, utilities can further explore how to lower or mitigate those risks by using the U.S. EPA's [Hazard Mitigation Guide for Natural Disasters](#). Mitigating against the impacts of disasters is often less expensive than rebuilding after the event occurs. The Guide provides examples of mitigation projects for flooding (e.g., elevating a pump) as well as for other disaster scenarios that Hawaiian water utilities might face. Additionally, the Hazard Mitigation Guide provides information on funding sources. By integrating your mitigation planning into the local community plan, you may be eligible for additional funding such as federal grants or loans.



Finally, if disaster does strike, it is imperative that you are prepared to respond quickly. The U.S. EPA [Water Utility Response On-The-Go \(Response OTG\) Application](#) is a great tool to use during an emergency. You can use the App to respond in real time and in the field. Using this interactive tool, you can track severe weather, contact response partners, identify actions to take and inform incident command, all from the convenience of your phone or tablet. For example, if your service area is experiencing extreme weather, you can use an incident action checklist, find regularly updated contact information for response partners, and track the storm via the Storm Prediction Center. You can learn more about this tool online and download it for free in any app store.

The resources developed by the U.S. EPA will help water systems meet their requirements to comply with AWIA. By using the Baseline Threat document and VSAT Web 2.0, utilities can more effectively

continued on page 20

Be Disaster Resilient and Ready, continued from page 19

assess risks that threaten the safety and reliability of their water system. The ERP Template and Instructions allow you to not only create a comprehensive ERP, but also integrate your RA findings into your plan. With the help of the additional free water resilience resources, you can continue working toward providing safe and reliable services to customers during emergencies.

The U.S. EPA provides regular updates on water security and resilience resources available to utilities, interdependent sectors, and the public. These include the What's Going On newsletter, the bi-annual utilities webinar, and the states webinar through the Association of State Drinking Water Administrators (ASDWA).

Visit www.epa.gov/waterresilience to access these free preparedness tools and more from the U.S. EPA. Contact WSD-outreach@epa.gov for additional information on products from the U.S. EPA or to be added to the *What's Going On* newsletter email list. §



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AA/EOE/M/W/Vet/Disability

Newsletter Advertising

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 state-wide 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.

Item Number	Ad Size	Ad Size (wxh)	Cost Per Issue
(1)	1/8 Page	3 ½" x 2 ¼"	\$35 (business card)
(2)	1/4 Page	3 ½" x 4 ¾"	\$55
(3)	1/2 Page (H)	7 ½" x 4 ¾"	\$80
(4)	1/2 Page (V)	3 ½" x 9 ¾"	\$80
(5)	Full Page	7 ½" x 9 ¾"	\$110

To advertise in the AWWA Hawaii Section Newsletter, simply complete the application form below.

Ads must be in a "camera ready" form, as a *.jpeg or *.tif, and must have a minimum resolution of 225 dpi – maximum resolution of 300 dpi.

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: Juanita Colon

STEP 4 – SUBMIT ADVERTISEMENT:

Advertisement shall be submitted to:

Amanda Tanaka
Phone: (808) 944-1821
Email: atanaka@fukunagaengineers.com

New AWWA Hawaii Section Members

Please welcome the following new members that joined the Hawaii Section in the fourth quarter of 2019:

Thomas-Ryan Aguilo
Michael Jay Balbuena
Robert De Robles
Kevin Humphrey
Nicholas Ing
Eileen Lacaden
Dick Lehano-Boyce
Wilette Lum
Gilda Mafnas
Lance Mantanona
Salvatore Marino

Randy Munoz
Michael Muramoto
Chris Nakamura
Josephine Paulino
Jayson Pearson
Ignacio Reyes
Frank Rodrigues
Sefilina Skelton
Taling Taitano



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**FUTURE
SO BRIGHT**

2019 Membership Tenure Awards

AWWA honors significant membership tenure with the following awards, determined as of June 30 of each year. The recognition builds with years with the Association.

To be eligible, members must meet the qualifications for each award as detailed below:

Silver Water Drop Award

25 cumulative years of membership

Howard De Lima

Ross Kaneko

Garret Matsunami

Michael Miyahira

Victor Moreland

Paul Scott

Michael Street

Life Member Status

30 cumulative years of membership and at least 65 years of age

Michael Chun

Douglas Gomes

Gold Water Drop Award

50 cumulative years of membership

Richard Cox

AWWA Library

The library is maintained by the AWWA Hawaii Section for use by its members. If you are interested in viewing any of the following literature, please contact Daryl Hiromoto (darylhiromoto@gmail.com).

2011 Annual Conference - Opening Genl 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
Basic Chemistry for Water & Wastewater Operators*

Careers in Drinking Water
Case Studies in Source Water Protection
Computer Modeling of Water Distribution System M32
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
Distribution Valves: Selection, Installation, Field Testing, and Maintenance, 3rd Edition*

AWWA Library

Ductile-Iron Pipe and Fittings, 3rd Edition*
Field Guide to SDWA Regulations*
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
Installation, Field Testing and Maintenance of Fire Hydrants M17
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
Math for Distribution System Operators*
Math for Water Treatment Operators: Practice Problems to Prepare for Water Treatment Operator Certification Exams*
Maintaining Water Quality in the Distribution System
Modeling Water Quality in Distribution Systems, 2nd Edition
Natural and Engineered Solutions for Drinking Water Supplies
Operator Certification Guide - 5th Edition
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)
Practical Manual of Groundwater Microbiology, 2nd Edition
Public Affairs for Water Utilities
Pump Selection and Troubleshooting Field guide
Risk and Resilience Management of Water and Wastewater Systems*
Safety First: Night Work
Safety First: Water Main Repair DVD
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 Conservation Programs -A Planning Manual, 2nd Edition*
Water Distribution Operator Training Handbook
Water Infrastructure at a Turning Point: The Road to Sustainable Asset Management
Water Main Disinfection and Dechlorination
Water Operator Certification Exam Prep*
WSO: Water Transmission and Distribution
Water Resource Alternatives: The Future of Sustainable Utility Practices (2 tapes)
Water Reuse for a Sustainable Future
Water Treatment Made Simple for Operators*
We are AWWA
WSO: Distribution System

*Recently added

Committee Chairs 2019 - 2020

Awards

Mark Ohigashi
Brown and Caldwell

Bylaws/Standard Practice Manual

Ross Kaneko
CH2M Hill/Jacobs

Conference

Jessica Agsalda
The Limtiaco Consulting Group

Diversity/Young Professionals

Kathryn Yoshimura
Honolulu Board of Water Supply

Exhibits

Rich Hopkins
Hopkins Technical Products Inc.

Finance

Juanita Colon
Hawaii Rural Water Association

Fuller Award

Audrey Yokota
Fukunaga and Associates, Inc.

Legislation/Regulation

Clifford Lum
HDR

Membership

Jordan Oue
Honolulu Board of Water Supply

Newsletter

Amanda Tanaka
Fukunaga and Associates, Inc.

Nominating/Scholarship

Jeffrey Pearson
County of Maui Department of Water Supply

Operators Training

Daniel Lee
Honolulu Board of Water Supply

Pacific Rim

Dean A. Nakano
Brown and Caldwell

Public Outreach

Aiko Fajardo
Inclusion Consulting, LLC

Research/Technology

Dr. Marek Kirs
WRRC, University of Hawai'i at Manoa

Scholarship

Jeffrey Pearson
County of Maui Department of Water Supply

Scholarship

Ken Ota
Pacific Pipe Company

Small Water Systems

Joy Gannon
Pulama Lanai

Strategic Planning

Clifford Lum
HDR, Inc.

UH Manoa Student Chapter Subcommittee

(Vacant)

Water for People

Adrienne Fung
AECOM

Water Reuse

Lorna Heller
Honolulu Board of Water Supply

Website

Joanna Seto
Hawaii Department of Health SDWB

Western Pacific Subsection

Ken Rekdahl
Duenas Camacho & Associates

Workshops/Safety

Susan Mukai
Brown and Caldwell

Workshops/Safety

Barry Pollock
Rural Community Assistance Corporation

Youth Education

Jessica Agsalda
The Limtiaco Consulting Group



Upcoming Calendar of Events

April 22-24, 2020

AWWA-HIWPS Water and Wastewater
Conference
Guam

April 29-30, 2020

2020 AWWA Water Matters! Fly-In
Washington, D.C.

June 14-17, 2020

ACE 2020
Orange County Convention Center
Orlando, Florida

Membership Rates

Individual Active: \$192

Operations/Admin: \$75

Student: \$20

[Sign up here](#)

Hawaii Section Website and Email Address

The Hawaii Section website is www.hiawwa.org
Please visit the website for the latest information
about the Section.

The Hawaii Section email address is
hiawwa@gmail.com
Please include "Attention: [insert person's name
or position/committee]" in the subject line.

Editor of this Issue:

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Honolulu, HI 96814
Email: atanaka@fukunagaengineers.com

Newsletter Articles

AWWA members are welcome to submit articles
for the Newsletter. Please contact the editor for
information.

Submissions for the Winter Newsletter are due by
Friday, May 15, 2020.

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
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