PE MATTERS STATE NEWS

NSPE-HI HAWAII SOCIETY OF PROFESSIONAL ENGINEERS

>>>> JULY 2020

State News for NSPE Members

Meet Your NSPE-HI President 2020-2021

Majella Stevenson, P.E., F.NSPE, will serve as the 2020-2021 President of the Hawaii Society of Professional Engineers. She is currently the director of acquisition and logistics at the Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility and has been a member of NSPE for more than 20 years.

Prior to entering civil service, Stevenson completed a military career with the Naval Facilities Engineering Command (NAVFAC) as a civil engineers corp officer. She was commissioned in the US Navy in May 1990 after earning a bachelor's degree in chemical engineering from Purdue University. Her junior officer tours included Commander in Chief, US Atlantic Fleet, Naval Computer and Telecommunications Area Master Station Pacific engineering and acquisition tours in NAVFAC Hawaii as an activity civil engineer, contracting branch manager, multi-trade construction contracts, and assistant resident officer in charge of construction.

In 2001 Stevenson became the public works officer for the Naval Sea Systems Command (NAVSEA) Undersea Warfare Center in Keyport, WA. In 2003 she gained policy-level experience as the facilities maintenance director at the Navy Bureau of Medicine and Surgery in Washington, DC, and served as a facilities analyst for the Navy Base Realignment and Closure Office. In 2005, she returned

to Hawaii as the public works officer for the Pearl Harbor Naval Shipyard until her retirement from active duty in 2010.

In her civilian career, she has served as director of business operations at Fleet Logistics Center Pearl Harbor; director for facilities, supply, logistics and IT at Navy Information Operations Command Hawaii; overseas construction program manager for NAVFAC Pacific; and director of the facilities management division with NAVFAC Hawaii.

Stevenson is a 2009 graduate of the NAVSEA Executive Leadership Program, a 2014 graduate of the NAVFAC Leadership Development Program, and holds advanced degrees in industrial engineering, management, and public administration.

Honolulu Partnership Focuses on Testing Wastewater for COVID-19

The City and County of Honolulu has entered into a partnership with BioBot Analytics using $25,000 in federal funds to test wastewater from nine public treatment plants for the virus that causes COVID-19.

Researchers have found that testing wastewater can help provide a snapshot of how widespread the virus is in a given area. The amount of RNA fragments from the virus in a sewage sample is an indicator of how many infected people are living in a community, according to a *Honolulu Civil Beat* article. The virus that causes COVID-19 can be detected in an individual fecal matter within three days of infection. Honolulu Department of Environmental Services employees have taken samples each week from plants on Oahu since May.

Tao Yan, a University of Hawaii civil and environmental engineering professor, has also been involved with the pilot project because of his expertise in testing wastewater for different pathogens.

Read more.

What's the Status of Bridges in Hawaii?

A recent American Road & Transportation Builders Association report provides a snapshot of the status of bridges in the US. The association compiled state profiles and rankings from the Federal Highway Administration's 2019 National Bridge Inventory Data (released in April 2020).

The recent report showed that more than one third (37%) of US bridges—nearly

231,000 spans—need repair work. More than 46,000 bridges are rated in poor condition and classified as “structurally deficient.” A total of 81,000 bridges should be replaced. While the number of structurally deficient bridges declined by 900 compared to 2018, it still would take more than 50 years to repair them all.

The profile highlights the following about bridges in Hawaii

- Of the 1,138 bridges in the state, 80, or 7.0%, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 59 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 2.4% of total deck area on all structures.
- 3 of the structurally deficient bridges are on the Interstate Highway System.
- 142 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 1,111 bridges at an estimated cost of $11.6 billion.
- This compares to 1,112 bridges that needed work in 2015.

NSPE-HI Member to Present on Volcanic Eruption Challenges at 2020 Virtual PECon

Hawaii Society member **Curtis Beck, P.E., F.NSPE**, is presenting on a session titled Overcoming Volcanic Eruption Damage: How HDOT Kept Two State Highways Open at the 2020 Virtual PE Conference on August 6.

This presentation provides a detailed perspective of the nature of the damage to infrastructure caused by volcanic eruptions and the impact on daily public activities. The solutions shown to the engineering problems that arose illustrate how innovation and critical thinking are as important to the engineering profession as ever.

Curtis Beck, P.E., F.NSPE, is a consultant and construction manager for Bowers and Kubota Consulting of Waipahu, Hawaii. Beck has been a member of NSPE since 1981, has served in leadership roles at all levels chapter, state, and national, and currently serves on the NICET Board of Governors as Chairman.

Register for the Virtual PECon from August 3–7.

We Want to Hear from You!

Do you know of engineering news in Hawaii that would be great for this newsletter? Maybe it's a project you or your firm is working on, or perhaps you read some interesting engineering news in your local newspaper. Or maybe you know of a fellow PE or student who deserves a little recognition. If so, we want to hear from you. Email your ideas to pemagazine@nspe.org.

NSPE Urges Veto of Structural Engineering Bill

In a letter to Georgia Governor Brian Kemp, NSPE encouraged the veto of a bill to establish a separate licensing system for structural engineers.

President-Elect Tricia Hatley, P.E., F.NSPE, wrote that creating a new licensing system for structural engineering does not improve the public health, safety, or welfare. "Instead, it muddies the water, creating confusion and requiring regulatory authorities to make arbitrary distinctions to define structural engineering," she added. "Rather than reducing regulatory burdens, the change would add a new layer, requiring one engineer to obtain multiple licenses in order to do work that, previously, required only one."

Instead of creating a separate licensing system, NSPE recommends a certification

process that occurs after the professional engineering license has already been obtained. “This system would allow for the SE designation, if required or requested by potential employers or RFPs, without drawing the same, hard line between structural and other types of engineering,” Hatley wrote.

Read the full letter.

Take Action on Federal Infrastructure Bills

You have an important opportunity to add your voice to the debate around pending infrastructure legislation.

The first two bills are the House and Senate’s surface transportation infrastructure reauthorization bills—The INVEST in America Act (H.R. 2) and the America’s Transportation Infrastructure Act of 2019 (S. 2302). This is an opportunity to communicate to members of Congress the importance and value of having PEs involved in engineering decisions to protect the public health, safety, and welfare.

Take action on surface transportation reauthorization!

The third bill, the SMART Infrastructure Act (H.R. 4687), would take decision-making authority away from professional engineers and instead give it to state and local authorities, allowing them to select “appropriate” construction materials. The bill would establish that these entities would have the flexibility to select appropriate construction materials that meet the performance requirements of the contract and enhance the service life, sustainability, and resiliency of the project.

NSPE opposes this bill because its enactment would prevent PEs from making the final decision on the appropriate construction materials for a project. Additionally, it establishes a federal interagency task force charged with deciding whether state and local procurement practices have artificial barriers to competition for new and innovative materials and recommending actions that can be taken to remove barriers. Their decisions could put the public at risk should these new and innovative materials present unforeseen harms to the public.

Voice your opposition to H.R. 4687!

Celebrate PE Day!

NSPE is celebrating licensed professional engineers with the fifth annual Professional Engineers Day on Wednesday, **August 5**. Join the Society in raising awareness about what it means to be a PE and

showing appreciation for the work they do every day.

In lieu of in-district meetings with legislators, like those conducted last year, NSPE members will be able to participate in a series of panel discussions. The discussions will include members of Congress and/or their staff, who will share information on pending legislation that impacts the engineering profession. NSPE members will have opportunities to ask questions and to take action on the bills that are discussed by the panel.

PE Day falls within the week of the Virtual **PE**Con (August 3–7). As a highlight of PE Day, NTSB Chairman Robert Sumwalt III, will discuss "The Role and Responsibility of Professional Engineers in Ensuring Safety of Our Nation's Infrastructure." His presentation will touch on the NTSB's recommendation for eliminating the PE license exemption for public utility work, and the requirement for a professional engineer's seal on public utility engineering drawings, stemming from the tragic pipeline explosions and fires in the Merrimack Valley of Massachusetts.


SUMWALT


AMABA

IBM's Global Chief Technology Officer Ben Amaba, is also featured as a keynote speaker and will cover the professional engineer's role in artificial intelligence and technology.

Register for the Virtual **PE**Con.

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