



STATE OF HAWAII
DEPARTMENT OF HEALTH
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Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

Testimony in SUPPORT of SB0901
RELATING TO ONSITE NON-POTABLE WATER REUSE SYSTEMS

SENATOR MIKE GABBARD, CHAIR
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Hearing Date: February 22, 2019

Room Number: CR 224

1 **Fiscal Implications:** None.

2 **Department Testimony:** The Department of Health (Department) supports this measure with
3 comments. The Department has regulations that allow onsite water reuse for the treatment of
4 domestic wastewater. The National Blue Ribbon Commission's guidance expands the treatment
5 to include other non-potable waters such as stormwater and roof runoff. Given the complexity of
6 promulgating rules for an expanded program and the need to consult with affected parties, the
7 process to adopt new rule amendments will likely require two to three years to complete. Based
8 on current resources, the Department could adopt rules for onsite non-potable water reuse
9 systems, based on the National Blue Ribbon Commission for Onsite Non-potable Water
10 Systems, but would likely need until January 1, 2022 to complete the task effectively.

11 **Offered Amendments:** Revise the date in Section 2, Line 15 from January 1, 2020, to
12 January 1, 2022.

13 Thank you for the opportunity to testify on this measure.



Email: communications@ulupono.com

SENATE COMMITTEE ON AGRICULTURE & ENVIRONMENT
Friday, February 22, 2019 — 1:15 p.m. — Room 224

Ulupono Initiative Supports SB 901, Relating to Onsite-Non-Potable Water Reuse

Dear Chair Gabbard, Vice Chair Ruderman, and Members of the Committee:

My name is Murray Clay and I am Managing Partner of Ulupono Initiative, a Hawai'i-based impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally produced food; increase affordable, clean, renewable energy; and better manage waste and fresh water resources. Ulupono believes that self-sufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

Ulupono supports SB 901, which requires the Department of Health to adopt rules for onsite non-potable water reuse systems, because it aligns with our goal of preserving Hawai'i's water resources.

Water is the most important natural resource and critical to the survival of the people of Hawai'i. Therefore, water must be protected and managed in a diligent manner. Water reuse is often the most environmentally prudent method of caring for our fresh water supply. Climate change, which has led to a 23 percent decrease in rainfall on O'ahu from 1980 to 2010¹, highlights the need for water preservation measures.

As Hawai'i's water issues become increasingly complex and challenging, we appreciate this committee's efforts to look at policies that protect our water resources.

Thank you for this opportunity to testify.

Respectfully,

Murray Clay
Managing Partner

¹ Board of Water Supply 2016 Water Master Plan,
<https://www.boardofwatersupply.com/bws/media/files/water-master-plan-final-2016-10.pdf>



ONE WORLD ONE WATER
677 Ala Moana Blvd, Suite 1100
Honolulu, Hi 96713

Testimony in Support of SB901
Relating to the Onsite Nonpotable Water Reuse Systems

Senate Committee on Agriculture and Environment
February 22nd, 2019
1:15pm
Conference Room 224

Subject: Senate Bill (SB) 901 Relating to Onsite Nonpotable Water Reuse Systems; **AMENDMENT REQUESTED**

Aloha Chair Gabbard, Vice Chair Ruderman, and Members of the Senate Committee on Agriculture and Environment,

At One World One Water we are dedicated to reinvesting in water infrastructure and restoring natural environments, and we strongly support **SB901** which requires the Department of Health to adopt the National Blue Ribbon Commission for Onsite Non-potable Water Systems rules by January 1, 2020, with a requested **amended date of January 1, 2021**.

Revised Language:

SECTION 2. By January 1, 2021, the department of health shall adopt rules for onsite non-potable water reuse systems, based on the National Blue Ribbon Commission for Onsite Non-potable Water Systems' "A Guide for Developing and Implementing Regulations for Onsite Non-Potable Water Systems."

Water reuse has been recognized internationally as a strategy for combatting climate change, drought, and reduced fresh water supplies. Since other states have also recognized the benefits of water reuse there has been a lot of research conducted on the safest and most efficient designs of reuse systems. At the forefront of research is the National Blue Ribbon Commission for Onsite Non-Potable Water Systems, a nationally recognized partnership made up of representatives from municipalities, public health agencies, water utilities along with support from the Water Research Foundation, Water Environment & Reuse Foundation, and the US Water Alliance.

In order to safely and efficiently excel water reuse in Hawaii we greatly support **SB901** which requires Hawaii Department of Health to adopt the National Blue Ribbon Commission Guidebook. We're confident that this resource will help guide Hawaii in developing and implementing regulations and oversight programs for onsite non-potable water systems that are both scientifically rigorous and protective to public health.

Please contact us at globalwater@gmail.com should you have any questions or require additional information regarding this matter.

Sincerely,
One World One Water

Testimony of The Nature Conservancy of Hawai'i
Supporting SB 901 Relating to Onsite-Non-Potable Water Reuse Systems-
Senate Committee on Agriculture and Environment
Friday, February 22, 2019, 1:15 PM, Room 224

The Nature Conservancy of Hawai'i is a non-profit conservation organization dedicated to the preservation of the lands and waters upon which all life depends. The Conservancy has helped protect more than 200,000 acres of natural lands in Hawai'i and Palmyra Atoll. We manage 40,000 acres in 13 nature preserves and work in over 30 coastal communities to help protect the near-shore reefs, waters and fisheries of the main Hawaiian Islands. We forge partnership with government, private parties and communities to protect forests and coral reefs for their ecological values and the many benefits they provide to people.

The Nature Conservancy supports SB 901 that would require the Department of Health to adopt rules for onsite non-potable water reuse systems.

Easily available fresh water is not a limitless resource here in the middle of the Pacific. Several locations in the state have experienced prolonged drought in recent years. Science indicates that the likely effects of climate change in Hawai'i will include:

- More frequent and more severe storms that can increase runoff and siltation; but
- Overall, less rainfall in many locations and therefore less fresh water; and
- Higher temperatures that affect watershed health and can be beneficial to pests.

Hawai'i is already exhibiting telltale signs of climate change. UH's Rainfall Atlas catalogues a century of declining rainfall and fewer trade wind days. Summer temperature records have been broken across the state and a record number of storms have taken aim at Hawai'i over the last few years.

In response to these conditions, we must plan and implement mitigative and adaptive measures to ensure the resilience of our natural and human systems. Healthy Hawaiian forests that are not overrun by invasive species act like a sponge, collecting rain and moisture, slowly delivering fresh water into streams and aquifers, absorbing greenhouse gases, and reducing runoff and siltation into near shore waters during storm events.

Additionally, we must improve efficiencies and reuse of our fresh water resources, including through the types of on-site non-potable water reuse systems that will be guided by Department of Health rules contemplated in this measure.

Thank you.

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HAWAI'I COMMUNITY FOUNDATION
Amplify the Power of Giving

COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Date: February 22, 2019

Time: 1:15 p.m.

Place: Capitol Room 224

Re: SB 901 Relating to Onsite Non-Potable Water Reuse Systems

Aloha Chair Gabbard and members of the Senate Agriculture and Environment Committee! The Fresh Water Initiative of the Hawai'i Community Foundation strongly supports **SB 901** which requires the Department of Health to adopt the National Blue Ribbon Commission for Onsite Non-potable Water Systems rules by January 1, 2020, with a requested **amended date of January 1, 2021**.

Revised Language:

SECTION 2. By January 1, 2021, the department of health shall adopt rules for onsite non-potable water reuse systems, based on the National Blue Ribbon Commission for Onsite Non-potable Water Systems' "A Guide for Developing and Implementing Regulations for Onsite Non-Potable Water Systems."

Last year various agencies across the state were brought together to form the Water Reuse Task Force in an effort to scale water reuse across the state. Water reuse has been identified as a key strategy for water security and is part of Hawaii's Fresh Water Initiative - the statewide goal of reaching 100 million gallons per day in additional, reliable fresh water capacity by 2030.

Since other states have also recognized the benefits of water reuse there has been a lot of research conducted on the safest and most efficient designs of reuse systems. At the forefront of research is the National Blue Ribbon Commission for Onsite Non-Potable Water Systems, a nationally recognized partnership made up of representatives from municipalities, public health agencies, water utilities along with support from the Water Research Foundation, Water Environment & Reuse Foundation, and the US Water Alliance.

With the goal of supporting the adoption of onsite recycled water, the National Blue Ribbon Commission has developed 'A Guidebook for Developing and Implementing Regulations for Onsite Non-potable Water Systems'. Created by and for utility leaders and state and local public health regulators, this guidebook presents a concrete and actionable framework that localities can utilize for regulating and managing onsite non-potable water systems based on best-in-class science and research. Having a consistent policy framework across cities and states is one of the best ways that we can integrate onsite systems in a way that protects public health and meets our water needs.

Since there are currently no national standards for onsite non-potable water systems in the United States, these guidelines provide vetted public health-based standards and a streamlined

permitting process. In order to safely and efficiently increase water reuse in Hawaii we greatly support **SB 901** which requires Hawaii Department of Health to adopt the National Blue Ribbon Commission Guidebook by **January 1, 2021**. We're confident that this resource will help guide Hawaii in developing and implementing regulations and oversight programs for onsite non-potable water systems that are both scientifically rigorous and protective to public health.

In addition to supporting this bill, Hawaii Community Foundation and Hawaii's Fresh Water Initiative are simultaneously supporting Hawaii's plumbing code updates so that by the time the National Blue Ribbon Commission's reuse guidelines are implemented the current plumbing code will include the necessary regulations for onsite reuse systems.

Should you have any questions about this testimony, please feel welcome to contact me at dokano@hcf-hawaii.org.

Sincerely,

Dana Okano, PhD, AICP
Program Director of Strategies, Initiatives and Networks
Hawai'i Community Foundation

SB-901

Submitted on: 2/21/2019 1:07:30 PM

Testimony for AEN on 2/22/2019 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	Testifying for O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:



Feb. 22, 2019

In Support of SB901 Relating to Onsite Non-Potable Water Reuse Systems
Senate Committee on Agriculture & Environment (AEN)
Feb. 22, 2019, 1:15pm, Room 224

Aloha, Chair Gabbard, Vice Chair Ruderman, and Members of the Committee:

The Surfrider Foundation's Hawaii Chapters strongly support SB901 to help the Hawaii Dept. of Health (DOH) establish rules and guidelines for onsite non-potable water reuse systems. Surfrider has worked with the Hawaii Community Foundation's Fresh Water Initiative in the past to support their goals of increase water security by 100 million gallons per day by 2030, and this bill will help greatly in that effort.

We recommend that DOH create new rules based on guidelines from the National Blue Ribbon Commission for Onsite Non-Potable Water Systems, which have been successfully implemented in other states and many other countries. Creating new rules entails updating each county's plumbing codes and setting up standards that are consistent across the state. This will help homeowners, condo associations and new building owners to separate blackwater from graywater, which can then be recycled and recycled for many non-potable uses. Based on findings from the Blue Ribbon Panel and the Water Reuse Task Force, DOH can now begin to identify policies to help scale up water reuse in the Hawaiian Islands in a safe, effective and economically viable manner.

As the Hawaii Regional Manager of Surfrider, I was invited to join and currently serve on the Hawaii Dept. of Health's (DOH) Cesspool Conversion Working Group, and one of the issues we are dealing with is how to reduce the amount of wastewater generated in cesspools and septic systems across the state. Because there is no current policy that allows for the separation of blackwater and graywater, which can be recycled and help with the goal of water reuse, while also reducing the volume of wastewater. I was also fortunate to be invited to the Bill & Melinda Gates Foundation's Reinvented Toilet Expo in Beijing in Nov. of 2018, and I learned that many new technological advancements in wastewater treatment depend on the ability to recycle graywater.

Surfrider is part of the Hawaii Reef & Ocean Coalition (HIROC), and we believe this bill will increase water reuse and help homeowners convert to more efficient wastewater treatment systems. Because cesspools pose serious public health and environmental problems, new policies and guidelines are needed to help Hawaii conserve water and recycle more of it. Mahalo for your consideration and leadership in dealing with these water quality and waste issues and helping to make Hawaii a leader in wastewater treatment.

Aloha,

Stuart Coleman

Stuart H. Coleman, Hawaii Manager

SB-901

Submitted on: 2/20/2019 5:35:17 PM

Testimony for AEN on 2/22/2019 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Elle Cochran	Individual	Support	No

Comments:

Aloha Chair Gabbard, Vice-Chair Ruderman and committee,

I am in super strong support of Onsite non-potable reuse systems. Any practices we can implement that helps offset Potable water use and make positive use of a wasted resouce will only be a benefit to us now and finto the future.

Mahalo for this initiative, time ,energy and effort,

Elle Cochran

808-281-7709

SB-901

Submitted on: 2/19/2019 4:14:19 PM

Testimony for AEN on 2/22/2019 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michelle Matson	Individual	Support	No

Comments:

This is truly a needed futuristic measure. Especially in view of O'ahu's Red Hill Fuel Tank fiasco, with immediate and necessary remedy and relocation away from our major urban aquifer deterred by the US Navy. And also in view of claims by some that we have plenty of water - twice that needed for the island and all the towers in Kaka'ako yet to be built. Thank you for providing this remedial water supply assurance for the future.

SB-901

Submitted on: 2/21/2019 4:10:30 PM

Testimony for AEN on 2/22/2019 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kapua Keliikoa-Kamai	Individual	Support	No

Comments:

Aloha kakou,

SB901 RELATING TO ONSITE NON-POTABLE WATER REUSE SYSTEMS. Requires the department of health to adopt rules by January 1, 2020, for onsite non-potable water reuse systems.

I support SB901 but know that 1/1/2020 is too soon and the "process" doesn't fit with that short window if you want some decent rules. Please ammend to allow more time for this well intended Bill. Mahalo.