

DAVID Y. IGE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the Senate Committee on
WATER AND LAND**

**Wednesday, March 3, 2021
1:00 PM**

State Capitol, Via Videoconference, Conference Room 229

**In consideration of
GOVERNOR'S MESSAGE 563
SUBMITTING FOR CONSIDERATION AND CONFIRMATION TO THE
COMMISSION ON WATER RESOURCE MANAGEMENT, GUBERNATORIAL
NOMINEE, AURORA KAGAWA-VIVIANI, FOR A TERM TO EXPIRE JUNE 30, 2025**

The Department of Land and Natural Resources (Department) strongly supports the Governor's appointment of Dr. Kagawa-Viviani, PhD, to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

The Commission is required under Section 174C-7, Hawaii Revised Statutes, to select commissioners through an open, competitive process. An independent nominating committee composed of two (2) members selected by the Governor, one (1) by the Senate President and one (1) by the House Speaker solicits candidates typically by placing an ad in the papers across the State, in the monthly bulletin of the Commission, and on the Commission's website. The Nominating Committee reviews the applications, conducts interviews if desired and sends to the Governor the names of at least three individuals for consideration.

The nominees, by law, must have "substantial experience in the area of water resource management." In accordance with this nominating process, the Governor selected Dr. Kagawa-Viviani. PhD.

Dr. Kagawa-Viviani is a highly trained scientist with expertise in Hawaiian ecohydrology, botany, environmental engineering, and water resource management. She has extensive research and professional experience dealing with water and plant processes in Hawaiian watersheds and has received numerous awards and fellowships related to her education and work. Dr. Kagawa-Viviani is also a published author and lecturer. Along with her academic training, Dr. Kagawa-Viviani's research and work experience has allowed her to spend much time in the community

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

and understands how local communities deal with their unique water resource issues and challenges. Dr. Kagawa-Viviani is also an educator and mentor who brings an understanding of the complex relationship of water with the environment, communities, and external pressures such as climate change and urbanization.

Dr. Kagawa-Viviani taught the Water and Society course (GEO 305/SUST 315) at the University of Hawai'i at Mānoa (UH Mānoa) in the Fall 2020 semester and is currently part of a Moloka'i-based team conducting oral history interviews focused on the island's water management. From 2017 to 2020, she has held various leadership positions within the UH Mānoa Department of Geography and Environment and on the UH Mānoa Graduate Student Organization elections committee. Dr. Kagawa-Viviani has also been continuously involved with numerous activities within the scientific and professional community, as well as the community at-large, which included organizing and facilitating workshops, making presentations on her research in community and professional meetings, and guest lecturing in several graduate and undergraduate courses at the UH Mānoa.

If confirmed, Dr. Kagawa-Viviani would be only the tenth woman to serve on the Commission since 1987 and will bring a combination of academic knowledge, leadership qualities, and the ability to work collaboratively within the community. These skills will complement the current Commission membership and offer a perspective shaped through her education and work throughout the Hawaiian Archipelago. Dr. Kagawa-Viviani is eager to find opportunities to innovate in water governance, enhance water literacy, and foster a more proactive planning process while considering the complex, contentious, and historically nuanced water issues.

The Department strongly supports the nomination and appointment of Dr. Kagawa-Viviani to the Commission on Water Resource Management.

Thank you for the opportunity to comment on this measure.

GM-563

Submitted on: 3/1/2021 10:29:34 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|--------------------------|---------------------------|---------------------------|
| Kaleo Manuel | Testifying for DLNR-CWRM | Support | No |

Comments:

I would like to testify. Please allow me Zoom access. Thank you.


OFFICE OF HAWAIIAN AFFAIRS
‘Ōlelo Hō‘ike ‘Aha Kau Kānāwai
Legislative Testimony

GM 563

SUBMITTING FOR CONSIDERATION AND CONFIRMATION TO THE
COMMISSION ON WATER RESOURCE MANAGEMENT, GUBERNATORIAL
NOMINEE, AURORA KAGAWA-VIVIANI, FOR A TERM TO EXPIRE 06-30-2025

Ke Kōmike ‘Aha Kenekoa o ka Wai a me ka ‘Āina
Senate Committee on Water and Land

Malaki 3, 2021

1:00 p.m.

Lumi 229

The Office of Hawaiian Affairs (OHA) strongly **SUPPORTS** GM563, which would confirm Dr. Aurora Kagawa-Viviani to the Commission on Water Resource Management (CWRM).

Water’s importance to the Native Hawaiian people is captured in the ‘ōlelo no‘eau “Ola i ka Wai (Water is Life).” Since the beginning of time, this precious resource was managed as part of the public trust, with allocation approaches and the assurance of ma uka to ma kai stream flow providing sufficient water for food production, drinking water, healthy estuaries, ground water recharge, and traditional and customary practices, among other critical purposes and uses.

Current State of Hawai‘i law continues to recognize our surface and ground waters as a public trust resource, to be held in trust and carefully stewarded for the benefit of present and future generations. In spite of this important recognition, however, water has often nonetheless been treated as a commodity, contrary to the law and to the detriment of the environment, as well as the rights and interests of traditional and customary practitioners, subsistence and small-scale farmers, appurtenant right holders, the Department of Hawaiian Home Lands, and domestic users.

As “Ke Kahuwai Pono,” or the designated steward of our islands’ water resources, the Commission on Water Resource Management (CWRM) has the responsibility to ensure that state laws recognizing the public trust in water are upheld. CWRM’s planning and decisionmaking have direct, long-term impacts on both Native Hawaiians and the larger community, who rely on water as a public trust resource. In light of this, OHA advocates for compliance with the statutory requirements of HRS § 174C-7(b), which requires that the five members of the CWRM “have substantial experience in the area of water resource management,” and that “at least one member shall have substantial experience or expertise in traditional Hawaiian water resource management techniques and in traditional Hawaiian riparian usage such as those preserved by section 174C-

101.” **Dr. Kagawa-Viviani easily fulfills these requirements, and her confirmation would ensure continuity in the commission’s expertise in Native Hawaiian culture and traditional Hawaiian resource management.**

OHA believes that Dr. Kagawa-Viviani’s extensive background and knowledge in water resource issues will serve as a tremendous asset to CWRM, should she be confirmed. Her experience comes from her educational, professional, and personal background, including her doctoral research in ecohydrology and her educational background in environmental engineering, ecology, and geography. She also has extensive work experience related to forest conservation and watershed management, engineering education, environmental consulting, and Hawaiian rain-fed agricultural systems. In addition to her substantial knowledge of hydrology, watershed conservation, and traditional agricultural practices in Hawai‘i, Dr. Kagawa-Viviani also possesses a crucial understanding of issues and concerns faced by local communities across the islands.

OHA views Dr. Aurora Kagawa-Viviani’s nomination as a positive step towards better upholding the State’s affirmative obligations to Native Hawaiians and under the public trust in water. Accordingly, OHA urges the Committee to **advise and consent** to her nomination.

Mahalo for the opportunity to testify in support of this measure.



Testimony Before The
Senate Committee on Water and Land
IN SUPPORT OF GM 563
Wednesday, March 3, 2021, 1:00PM, Room 229

We are Miwa Tamanaha and Kevin Chang the Co-Director's of Kua'āina Ulu 'Auamo (or KUA). KUA works to empower grassroots rural and Native Hawaiian mālama 'āina groups -fishers, farmers, families- to celebrate their places and pass on their traditions to better Hawai'i and achieve 'āina momona— an abundant, productive ecological system that supports community well-being.

KUA employs a community-driven approach that currently supports a network of more than 36 mālama 'āina community groups collectively referred to as E Alu Pū (moving forward together), 40 fishpond projects and practitioners called the Hui Mālama Loko I'a, and a growing hui of Limu practitioners all from across our state.

Participants in our networks have a long history in advocating for improved and equitable care in the use and distribution of water. Some participants have signed a formal statement on the importance of fresh water to our nearshores, loko ia and muliwai; Kahe Mau Ka Wai Ola (2016, attached) and for this among many other reasons **KUA enthusiastically supports GM 563 nominating Aurora Kagawa-Viviani to the Commission on Water Resource Management.**

KUA and the E Alu Pū network were founded by rural Native Hawaiian community efforts concerned with the care of Hawai'i's ecological and food systems from ridge to reef. Healthy hydrological systems are foundational to Hawaiian cultural practices and the health of our food and ecological systems.

Aurora Kagawa-Viviani understands the significance and trajectory of raindrops on our mountain and the nourishing impacts of their aggregated and accumulated flow on leaves, roots and in our soil. She envisions and articulates how the mist on our mountaintops and pali find their way into our waterfalls, streams and aquifers, agricultural fields, fishponds and muliwai. She also understands the importance of wai as waiwai, water as wealth, to our community based on long held traditional ecological knowledge and values of Hawai'i.

As one of our founding kupuna, Uncle Henry Chang Wo, Jr. would say, "We watch that first raindrop that hits the island. We follow the raindrop all the way to the ocean, we don't let that raindrop get dirty. Because when that mountain water and that ocean water meet, when they come together that's when the ocean hānau, that's when the ocean gives birth. Our fishes depend on that, the estuary, they all need that water from the mountain. If it was only the ocean itself, too salty, she *make* (dies) and that is what is happening now." Aurora is an ideal candidate to the CWRM and will bring a unique perspective in the field of hydrology that speaks to the health and needs of the people, the place and the resources involved.

We urge and would applaud an affirmative approval of her nomination.

Aloha 'Āina Momona.

KAHE MAU KA WAI OLA

**RESOLUTION TO THE COMMISSION ON WATER RESOURCE MANAGEMENT TO
REQUEST THAT IT FULFILL ITS CONSTITUTIONAL AND STATUTORY
RESPONSIBILITIES TO PROTECT LOKO I'A (TRADITIONAL HAWAIIAN FISHPONDS)
ACROSS HAWAI'I**

WHEREAS, loko i'a (traditional Hawaiian fishponds) as developed by the ancestral people of Hawai'i are ingenious and unique methods of fish farming and are undisputedly part of traditional and customary Hawaiian practices; and

WHEREAS, loko i'a are critical resources for the Hawaiian community and all in Hawai'i and provided primary sources of protein for an estimated prehistoric population upwards of one million people described by early explorers as healthy and robust despite living without large land mammals; and

WHEREAS, a study in 1989-90 found approximately 488 loko i'a in the islands of which ninety-nine were actively in production at the time of an inventory in the 1900s; and

WHEREAS, contemporary guardians and managers of loko i'a attest to the critical role that abundant, clean, freshwater has in perpetuating the ecosystems necessary for loko i'a function and they further note loko i'a were historically built where such freshwater was available; and

WHEREAS, the restoration and reuse of loko i'a are desirable uses of freshwater because they perpetuate Native Hawaiian cultural practices and create an opportunity to increase supplies of certain fish which will make Hawai'i more food-secure and increase sustainable economic development opportunities for rural communities; and

WHEREAS, abundant, clean freshwater is critical for kalo (taro) cultivation and loko i'a function and is also necessary to maintain the health and vitality of native stream ecosystems, including native and endemic organisms such as 'ōpae (shrimp), hīhīwai (limpet) and 'o'opu (goby) that depend on stream flow for portions of their life cycle transiting to and from the ocean; and

WHEREAS, clean freshwater flow whether in surface streams or below ground is vital to the health and abundance of many limu (seaweed) species found in the nearshore marine habitat and many fish species depend on it as their primary food source, additionally ensuring the perpetuation (including preservation, conservation, and reservation) of traditional practices of limu and fish gathering and;

WHEREAS, the significance of clean groundwater to the cultural practices, history, and interests of Native Hawaiians is still not widely recognized, as evidenced by the Hawai'i State Water Plan, which does not consider the effects of groundwater withdrawal on the traditional and customary practices of Hawaiians; and

WHEREAS, the State of Hawai'i and its agencies and subdivisions have a Constitutional responsibility to reaffirm and protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes by Hawaiians; and

WHEREAS, the State of Hawai'i Commission on Water Resource Management (CWRM) is specifically empowered and required to protect Native Hawaiian Water Rights, Haw. Rev. Stat. § 174C-101; and

WHEREAS, in 2006, the Supreme Court of the State of Hawai'i in *Kelly v. 1250 Oceanside Partners* held state and county agencies' duties to protect the public trust, which is inclusive of Native Hawaiian traditional and customary practices, went beyond passively enforcing laws as a "mere umpire", and such agencies were obligated at "every stage" of the planning process to "take the initiative" in protecting public trust resources; and

WHEREAS, CWRM is obligated to prepare a Water Resources Protection Plan, which identifies in part, "desirable uses [of freshwater] worthy of preservation by permit, and undesirable uses for which permits may be denied" pursuant to HRS § 174C-31(d)(2); and

WHEREAS, on April 10, 2012, the Hawai'i State Legislature adopted Senate Resolution No. 86 (SR86), which urged the Department of Land and Natural Resources, Department of Health, and Office of Planning to modify permitting processes to better effect the restoration of loko i'a; and

WHEREAS, the Hui Mālama Loko I'a is a network of kia'i loko (fishpond guardians) of nearly 40 ponds and pond complexes who have gathered opportunistically since 2004 in an effort to support and collaborate to advance the restoration and perpetuation of loko i'a culture throughout Hawai'i; and

WHEREAS, the essential nature of freshwater was a recurring theme during the gathering of Hui Mālama Loko I'a in Kīholo, North Kona on April 14 – 17, 2016, and a priority discussion topic on April 17, 2016 that inspired the drafting of this resolution; and

WHEREAS, the kia'i loko of Hui Mālama Loko I'a continued to invest time and effort over the following twelve months to discuss and refine this resolution for final consideration during this annual gathering of Hui Mālama Loko I'a in Kulapae, Waiākea, Hilo on April 6 – 9, 2017,

NOW, THEREFORE, BE IT RESOLVED that the below-listed kia'i loko seek that the CWRM take all necessary steps in its ministerial, planning, and other decision-making to protect the necessary quantity and quality of water, whether on the surface or below ground, necessary to perpetuate the ecosystems of loko i'a; and

BE IT FURTHER RESOLVED that we seek that immediately the CWRM affirmatively determine the potential effects on loko i'a caused by changes in water quantity and quality that may result from water use associated with the issuance of well construction permits, pump installation permits, stream channel alteration permits, and Water Use Permits; and

BE IT FURTHER RESOLVED that we seek that the CWRM, in the preparation and or adoption of the Water Resources Protection Plan, the State Water Projects Plan, the County Water Use and Development Plans, and all other elements of the Hawai'i Water Plan, they affirmatively determine the potential effects on loko i'a to changes in water quantity and quality that may result from water use and identify tasks and strategies to protect the ecosystems and the traditional and customary practices associated with loko i'a; and

BE IT FURTHER RESOLVED, that a certified copy of this Resolution be transmitted to the Commission on Water Resource Management, and the Office of Conservation and Coastal Lands of the Hawai'i State Department of Land and Natural Resources, Hawai'i State Land Use Commission, Hawai'i State Office of Planning, Department of Hawaiian Home Lands, County Departments and Boards of Water Supply, County Councils, Region 9 of the United State Environmental Protection Agency, Hawai'i Department of Transportation, the Office of Hawaiian Affairs, Kamehameha Schools and all such large landowners and organizations who affect the use and health of fresh water throughout the state.

KIA'I LOKO (FISHPOND GUARDIANS)
in attendance at 2016 Kīholo and 2017 Kulapae gatherings
(in alphabetical order by last name, alongside loko i'a and chosen geographical marker)

Hawai'i

Akau, James J. Ka'alā'iki, Ka'alā'iki.
Aloua, Ruth. Kaloko, Kaloko.
Anthony, Kamala. Honokea, Waiuli.
Cachola, Fred Keakaokalani. Kaloko, 'Aimakapā, and 'Ai'ōpio; Kaloko and Honokōhau.
Carbone, Jonathan. Loko i'a, Keaukaha.
Carbone, Minoaka. Loko i'a, Keaukaha.
Cooke, Tim. Ku'uali'i and Kahapapa, 'Anaeho'omalū.
Gutteling, Marinus. Hale o Lono, Honohononui.
Higa, Kenrock K.S. Lālākea, Hāmākua.
Higa, Waiola. Lālākea, Hāmākua.
Jardin, Erika. Honokea, Waiuli.
Johansen, Manoa. Honokea, Waiuli.
Kahana, Nāhōkū. Honokea, Waiuli.
Kahiapo, Shola K. Waiāhole, Honohononui.
Kamaka, Sandra Lehua. Ka Loko o Kīholo, Pu'uwa'awa'a.
Kanahele, Lanihuli. Hale o Lono, Honohononui.
Kanakanā'ole, Luka. Hale o Lono, Honohononui.
La'eha, Pi'i. Kalāhuipua'a, Ka'aiōpio, Manokū, Hope'ala, Kahinawao, Waipuhi, and Waipuhi Iki;
South Kohala.
Martins-Keliihoomalu, Chloe. Waiāhole, Honohononui.
McNaughton, Blake. Waiāhole, Honohononui.
Morton II, Winston C. Kūki'o Loko Wai, Kūki'o.
Mossman, Konrad Kalāho'ohie. Hale o Lono, Honohononui.
Pagan, Paola M. Kūki'o Loko Wai, Kūki'o.
Ruddle, Francis A. Kalāhuipua'a, Ka'aiōpio, Manokū, Hope'ala, Kahinawao, Waipuhi, and
Waipuhi Iki; South Kohala.
Soares, J.D. Kawai. Honokea, Waiuli.
Soller, Kyle O. Waiāhole, Honohononui.
Stewart, Roxane. Hale o Lono, Honohononui,
Subica, Shanell Pua'alaokalani Nihau. Ka Loko o Kīholo, Pu'uwa'awa'a.
Sullivan, Wil. Kūki'o Loko Wai, Kūki'o.

Maui

Henderson, Tiana Malina. Leho'ula, Aleamai.
Paman, Joylynn. Kō'ie'ie, Ka'ono'ulu.
Sinenci, Francis Palani. Leho'ula, Aleamai.
Tukuafu, Kara Nalani. Leho'ula, Aleamai.

Lāna'i

Benanua, Kekoa. Waia'ōpae Loko I'a, Pālāwai.
Kipi, Zeth. Waia'ōpae Loko I'a, Pālāwai.
Ostrander, Benjamin. Waia'ōpae Loko I'a, Pālāwai.
Ropa, Michael Kaleo. Waia'ōpae Loko I'a, Pālāwai.

Moloka'i

Mejia, Manuel. Ali'i and Kaloko'eli; Makakupaia and Kamiloloa.

Naki, Leimana Raymond. Kahinapōhaku, Moanui.
Turkelson, Steven J. Kahinapōhaku, Moanui.

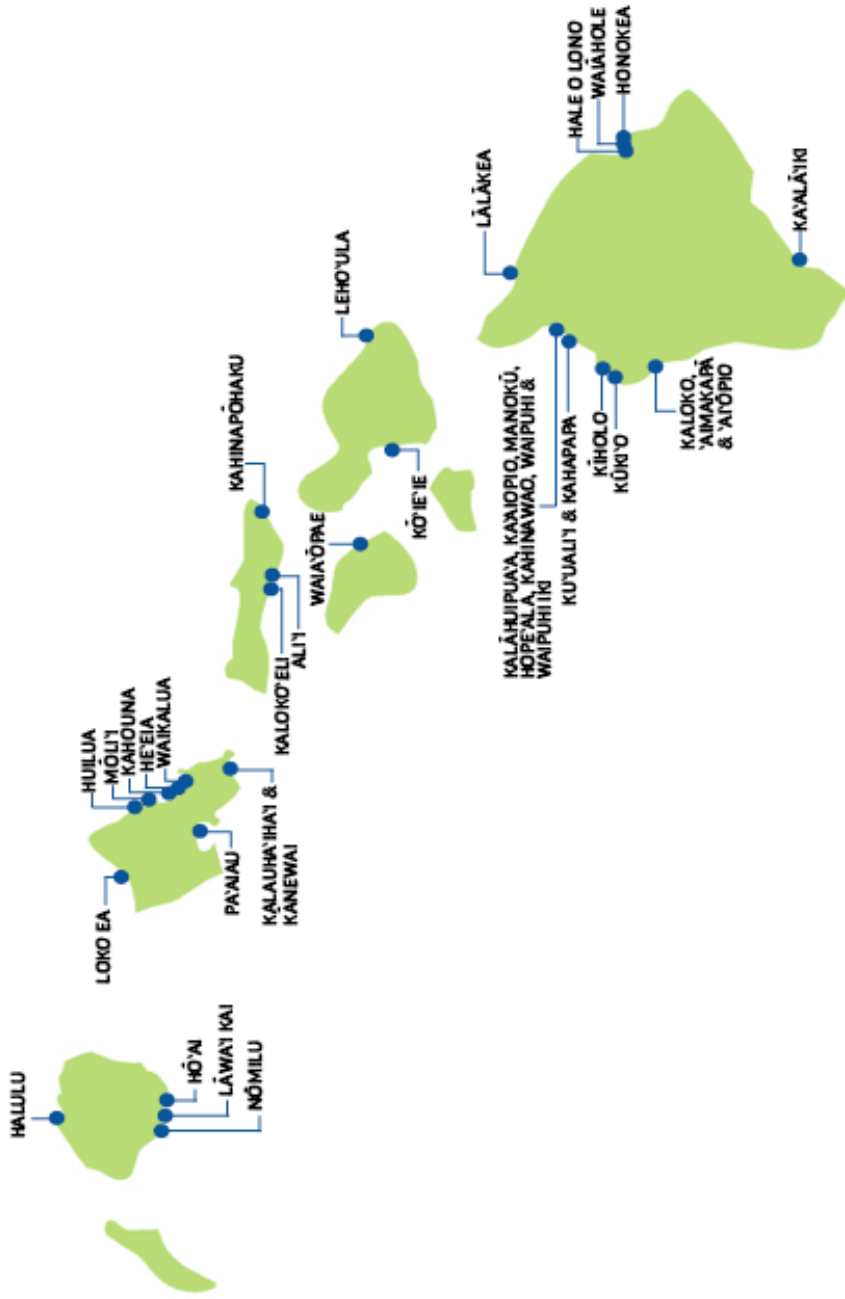
O'ahu

Bishop, Dane K. He'eia Fishpond, Ko'olaupoko.
Botelho, Māhealani. Huilua, Kahawainui.
Clark, Janet L. He'eia Fishpond, Ko'olaupoko.
Concepcion, Alexander Rey. Waikalua Loko l'a, Keahiakahoe.
Concepcion, Rosalyn Ku'uleimomi Rubio Dias. Waikalua Loko l'a, Keahiakahoe.
Costantino, Sayo. Loko Ea, Kawaihoa.
Cramer, Chris. Kānewai Loko Wai and Kalauha'iha'i; Kuli'ou'ou and Niu.
DeCoito, Rae Lynn. Loko Ea, Kawaihoa.
Flores, Peleke. He'eia Fishpond, Ko'olaupoko.
Kawelo, Hi'ilei. He'eia Fishpond, Ko'olaupoko.
Komae, Blake. Kahouna, Kahalu'u.
Kotubetey, Keli'i. He'eia Fishpond, Ko'olaupoko.
Leota, Kealaulaokamamo. He'eia Fishpond and Huilua; Ko'olaupoko and Kahawainui.
Long, Pūlama. He'eia Fishpond, Ko'olaupoko.
McCarty, Ku'uipo. Mōli'i, Hakipu'u.
Medeiros, Duane "Kiaaina". Kānewai Loko Wai and Kalauha'iha'i; Kuli'ou'ou and Niu.
Miller, Alyssa. Kānewai Loko Wai and Kalauha'iha'i; Kuli'ou'ou and Niu.
Moa, Kimberly D. Kamalu 'o keakua. Pa'aiiau, Kalauao.
Morgan, Loea. He'eia Fishpond, Ko'olaupoko.
Piiohia, Royce. He'eia Fishpond, Ko'olaupoko.
Pizarro, Kinohi. He'eia Fishpond, Ko'olaupoko.
Stiritz, Nitasha Camille. Loko Ea, Kawaihoa.
Velez, Israel. Mōli'i, Hakipu'u.
Wallace, Kahiau. Huilua, Kahawainui.
Wise, Ikaika. He'eia Fishpond, Ko'olaupoko.

Kaua'i

Blake, Ted Kawahinehelelani. Lāwa'i Kai, Spouting Horn.
Daly, Kirstie. Halulu, Wai'oli.
Hornstine-Lee, Joshua Ikaikamaikalani. Nōmilu, Kalāheo.
Kea, Gilbert. Hō'ai, Kōloa.
Lum Won, Kalalena A. Nōmilu, Kalāheo.
Makua, Kaina. Nōmilu, Kalāheo.
Reilly, James. Nōmilu, Kalāheo.
Reilly, Makana. Nōmilu, Kalāheo.

LOKO I'A
named in this resolution



**KĀKO‘O (additional supporters)
in attendance at 2016 Kīholo and 2017 Kulapae gatherings
(in alphabetical order by last name, alongside chosen affiliation and area of residence)**

Hawai‘i

Ching, Ulu. Community member, Hilo.
Gohier, Ginger. Community member, Kohala.
Goo, Nakoa. Community member, Hilo.
Kalei, Heather Nahaku. Community member, Kawaihae.
Mahoney, Scott Haililani. Community member, Waimea.
Quinn, Makamae. Community member, Holualoa makai.
Rodero, Celeste Emiko Kamaha‘ō. Community member, Mountain View.
Stephenson, Micah. Community member, Hilo.
Wong Jr., Walter K. Hālau Hale Kuhikuhi, Kamuela.

Maui

Mahoney, Robert Nohea. Community member, Wai‘ohuli.

O‘ahu

Aranaydo, Martin (Ka‘i‘ini). Kualoa-He‘eia Ecumenical Youth Project (KEY Project), Waihe‘e.
Asuncion, Brenda Fumiko. Community member, Waipi‘o.
Campbell, Noelle Campbell. Community member, Mō‘ili‘ili.
Chang, Kevin. Community member, Kahalu‘u.
Connelly, Alex Puanani. Community member, He‘eia.
Dudock, Heather. Hawai‘i Sea Grant, Kuli‘ou‘ou.
Frank, Kiana L. Community member, Kailua.
Fujitani, Kirsten. Community member, Kapālama.
Hargraves, Jonathan. Community member, Waimano.
Ito, Wally. ‘Ewa Limu Project, Kapālama.
Keala, Graydon “Buddy”. Loko I‘a Consulting, Honolulu.
Knapman, Cindy. Hawai‘i Sea Grant, Kailua.
Seipp, Kamaka‘āina. Community member, Kunia.
Tamanaha, Miwa. Community member, Waipi‘o.
Walton, Maya. Hawai‘i Sea Grant, Makiki.
Weeks, Bert. Community member, Aiea.

Kaua‘i

Bowen, Sara. Mālama Hulē‘ia, Kōloa.
Chock, Mason K. Mālama Hulē‘ia, Wailua.
Kagimoto, Kyle M. Community member, Lāwa‘i.

Other

Lyles, Jillian. Community member, Seattle, WA.



'Āina Aloha Economic Futures

**SENATE COMMITTEE ON WATER & LAND
ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN**

Testimony in Strong Support of GM563
**Submitting for confirmation to the Commission on Water Resource Management,
Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025**

March 3, 2021 10:35am

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

The co-founders of the 'Āina Aloha Economic Futures initiative stand in **strong SUPPORT** of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

Dr. Aurora Kagawa-Viviani has substantial experience in the area of water resource management in Hawai'i and possesses the requisite "substantial experience or expertise in traditional Hawaiian water resource management techniques and in traditional Hawaiian riparian usage." She is a skilled scientist and educator who possesses advanced knowledge in land-based surface water and ground water resources. Her portfolio of academic achievement and community service demonstrates protection and management of these water resources is carried out through resource assessments, planning, and regulation.

- Aurora will exemplify "Ke Kahawai Pono" at the Commission on Water Resource Management and it's responsibility in protecting the water resources of Hawai'i, recognizing that the waters of the State are held in trust for the benefit of the citizens of the State.
- Aurora will make well-considered, fair decisions.
- Aurora's training in hydrology and awareness of climate change effects in the islands would contribute to planning for changing water resources.
- Aurora's familiarity with the different hydrologic and community contexts across the islands would be an asset to the Commission's work in managing complex water issues across Hawai'i.
- Aurora's breadth of experience and training working in the sciences and in local community would bring valuable mauka-to-makai perspective to the Commission.

We are confident that Dr. Kagawa-Viviani will continue to be an invaluable asset to Commission on Water Resource Management as it carries out its increasingly important kuleana. We urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

The 'Āina Aloha Economic Futures effort is a community driven process aimed at engaging community members to develop a vision for Hawai'i's economic future that focuses on putting community and 'āina at the forefront and ending "business as usual" politics that currently has 2,800 signatories.

Mahalo for the opportunity to testify on this measure,

Noe Noe Wong-Wilson and Mahina Paishon-Duarte
(on behalf of 'Āina Aloha Economic Futures co-founders)



SIERRA CLUB OF HAWAI'I

SENATE COMMITTEE ON WATER AND LAND

March 3, 2021 1:00 PM

In **SUPPORT** of **GM563**

Aloha Chair Inouye, Vice Chair Keith-Agaran, and members of the committee,

On behalf of our 27,000 members and supporters, the Sierra Club of Hawai'i **supports GM563, the confirmation of Aurora Kagawa-Viviani** to the State Commission on Water Resources Management for a term to expire 6-30-2025.

The Commission on Water Resource Management (CWRM or Commission) administers the State Water Code and is composed of seven members, including the Chair of the State Board of Land and Natural Resources, the Director of the State Department of Health, and five other members who are appointed by the Governor and confirmed by the State Senate. The Commissioners are non-paid volunteers who represent a cross-section of the community and have substantial experience in water resource management.

Aurora Kagawa-Viviani received a bachelor's degree in environmental engineering from the Massachusetts Institute of Technology and both a master's and PhD from the University of Hawai'i at Mānoa, with a focus on ecology and hydrology in Hawai'i. Beyond her education, Aurora has an impressive background spanning research, publications, presentations, and teaching on a variety of issues that are of relevance to the CWRM.

The Sierra Club believes the nominee will offer a well-informed, balanced approach to issues presented before the Commission, no matter how complex or controversial. As a Native Hawaiian hydrologist with expertise on climate change, Aurora has both the cultural understanding and scientific training to be an asset to the Commission as they fulfill their mission "to protect and manage the waters of the State of Hawai'i for present and future generations."

We urge your **support of GM563** to confirm Aurora Kagawa-Viviani to the Commission on Water Resources Management. Thank you very much for this opportunity to provide testimony.

Mahalo,

Marti Townsend
Chapter Director

GM-563

Submitted on: 2/22/2021 3:54:41 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| cheryl B. | Individual | Support | No |

Comments:

Strong support.

GM-563

Submitted on: 2/23/2021 9:46:13 AM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Davianna McGregor | Individual | Support | No |

Comments:

Aloha Chair Inouye and members of the Senate Water and Land. My name is Davianna PÄ• maika'i McGregor and I am a professor of Ethnic Studies at UH-MÄ• noa and Director of the Center for Oral History. I am testifying in strong support of GM 563 to appoint Aurora Kagawa-Viviani to the Commission on Water Resource Management.

I have known Aurora since she was in the Kamehameha Schools Science club and visited Kaho'olawe and as she completed her undergraduate studies at MIT and did her graduate work at Stanford and the University of Hawai'i. This past summer I helped her set up an oral history project to interview Native Hawaiian homesteaders about their connection with and concerns about water resouce management on the island of Moloka'i, where I currently live and teach online. Moloka'i has the most challenging water issues and important court cases for which the Supreme Court rendered precedent setting decisions to protect our water as a public trust.

Aurora knows the science of our island hydrology, she is informed about the water issues, she works with our communities, and she will bring fresh and compelling insights to the work of the CWRM. What an inspired nomination. I urge you to support GM 563.

I can be reached at davianna@hawaii.edu. Me ke aloha, aloha 'Ä• ina.

GM-563

Submitted on: 2/23/2021 1:54:16 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Kirsten Oleson | Individual | Support | No |

Comments:

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Kirsten Oleson, Ph.D., Associate Professor, stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for ten years through her work in at the University of Hawaii. Dr. Kagawa-Viviani is thoughtful and knowledgeable, and a leader in her field of ecohydrology. Of particular interest to her duties as a member of the Commission is her knowledge of climate change impacts on Hawaii's freshwater resources and the communities who depend upon them. She crosses disciplines well, and is able to communicate equally well to scholars and members of the public. Based on my interactions with Aurora, I have no doubt that she will be able to make well-considered, fair decisions.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

GM-563

Submitted on: 2/24/2021 12:32:58 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Victoria Keener | Individual | Support | No |

Comments:

GM-563

Submitted on: 2/24/2021 7:50:37 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|--------------------|--------------------|
| Joan Pan | Individual | Support | No |

Comments:

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

I stand in strong **support** of Governor Ige's nomination (GM563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management for a term to expire June 30, 2025.

I met Aurora over five years ago, through the Department of Geography and Environment at the UH MÅ• noa, as doctoral students. I entered the department a few years after her, and though our sub-fields and research interests greatly differed, Aurora was one of the first peer mentors I had in the department. I quickly saw that she extended her leadership, discernment and support to students of the department, new and seasoned. Although Aurora has already successfully completed the program and has received her PhD degree, the work she initiated is sustained by subsequent students who have been positively influenced by her example.

I also know of Aurora through her work with different hydrologic and community contexts across the islands, and as an instructor. Aurora developed the curriculum for a 300-level course on Water and Society at UH MÅ• noa and taught it last semester, in Fall 2020. Aurora's breadth of experience and training working in the sciences and the local community would bring valuable perspective to the Commission.

I urge you to support GM563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Thank you for the opportunity to testify on this measure.

Respectfully,

Joan Pan

**SENATE COMMITTEE ON WATER & LAND
ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN**

Testimony in Strong Support of GM563

**Submitting for confirmation to the Commission on Water Resource Management,
Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025**

**March 3, 2021, 1:00 p.m.
Via Videoconference**

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Wendy Miles stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management for a term to expire June 30, 2025.

I have known Dr. Aurora Kagawa-Viviani for 8 years through her work and studies at the University of Hawai'i, and our shared involvement in Hawai'i's natural resource management community. Dr. Aurora Kagawa-Viviani is a brilliant and compassionate person, with astute observations of society, and one of the State's foremost experts on Hawai'i's freshwater systems. I can attest to Dr. Kagawa-Viviani's dedication to serving the people of Hawai'i to the best of her ability. I am completely confident in her ability to make well-considered and fair decisions, informed by the best available science and the near- and long-term needs of Hawai'i's people. Dr. Kagawa-Viviani's expertise in hydrology, research in the field of climate science, and training in both the socio-economic and ecological aspects of water resource management will strengthen the Commission's ability to plan for the optimal use of Hawai'i's water resources.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,

Wendy Miles, Ph.D.

GM-563

Submitted on: 2/25/2021 11:36:55 AM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Lucas Fortini | Individual | Support | No |

Comments:

Testimony in Strong Support of GM563

Submitting for confirmation to the Commission on Water Resource Management, Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025

March 3, 2021, 1:00 p.m.

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Lucas Berio Fortini stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for seven through her work and studies at the University of Hawai'i at Mānoa. We have collaborated on multiple research projects focused on understanding the link between the ecology of native systems and climate. Aurora is a stellar researcher that has repeatedly shown her ability to handle very complex research subjects in ecology, hydrology, ecological restoration and other related subjects. Besides her strong analytical skills and expertise in these critically relevant subject areas, she is admired by her peers in how she has pushed for a wider consideration of Hawaiian and broader community perspectives in the development and application of science in Hawai'i. Lastly, Aurora's interest and knowledge of climate change related science is a much needed skill for us to prepare for changes ahead.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Lucas Fortini

Research ecologist

USGS



KE ONE O KĀKUHIIHEWA

O'ahu Council of the
Association of Hawaiian Civic Clubs

SENATE COMMITTEE ON WATER & LAND

CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN

Testimony in Strong Support of GM563

Submitting for confirmation to the Commission on Water Resource Management, Governorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Ke One O Kakuhihewa stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for the past 26 years, first as her teacher at Nā Pua No'eau, and during her high school years with the Hui Lama Hiking Club at Kamehameha Schools.

Aurora has the breadth of experience necessary for this Commission. Her research in hydrology, climate change effects, and hydrological effects in Hawaiian ecosystems would be a great benefit to the Commission.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Commission.

Ke One O Kakuhihewa is a native Hawaiian council made up of 24 civic clubs on the island of O'ahu. Our oldest member, Hawaiian Civic Club of Honolulu was established by Prince Jonah Kūhiō Kalaniana'ole on December 7, 1918.

Sincerely,

Benton Kealii Pang, Ph.D.

BENTON KEALII PANG, PH.D.
HAWAIIAN CIVIC CLUB OF
HONOLULU
PELEKIKENA

JACOB KA'ŌMAKAOKALĀ AKI-
KING KAMEHAMEHA HCC
HOPE PELEKIKENA

GEORGIANA NAVARRO-
MĀKAHA HCC
HOPE PELEKIKENA 'ELUA

LEATRICE KAUAHI-HCC OF
HONOLULU
PU'UKŪ

ROTH PUAHALA -KING
KAMEHAMEHA HCC
PELEKIKENA IHO NEI

TERI LOO-KO'OLAUPOKO HCC
KĀKAU 'ŌLELO

CHRISTINE "CHRISSEY" ANJO-
PEARL HARBOR HCC
HOLE KĀKAU 'ŌLELO

'AHAHUI SIWILA HAWAI'I O
KAPOLEI
KALA HOLDEN

ALI'I PAUHI HCC
KEHAULANI LUM

'EAHUI PU'U'LOA HCC
MARLEEN KAU'I SERRAO

HCC OF HONOLULU
ANITA NAONE

KAILUA HCC
MAPUANA DE SILVA

KALIHI-PĀLAMA HCC
JUANITA BROWN
KAWAMOTO

KING KAMEHAMEHA HCC
LETANI PELTIER

KO'OLAULOA HCC
RANAE "TESSIE"
FONOIMOANA

KO'OLAUPOKO HCC
ROCKY KALUHIWA

LUALUALEI HCC
SHIRLINE HO

MĀKAHA HCC
LUANN LANKFORD-
FABORITO

MAUNALUA HCC
ROSE KITTY SIMONDS

NA LANI 'EHA HCC
R. KELANI RAMOS

NĀNĀIKAPONO HCC
JAYCINE HICKS

PAPAKŌLE'A HCC
KEALI'I LUM

PEARL HARBOR HCC
ANTOINETTE LEE

PRINCE KŪHIŌ HCC
A. MAKANA PARIS

PRINCESS KAHANU HCC
DREANA KALILI

PRINCESS KAI'ULANI HCC
RUSTY RODENHURST

QUEEN EMMA HCC
RAWLETTE P. KRAUT

HCC OF WĀHIAWA
NOELANI DEVINCENT

HCC OF WAIALUA
MAKALAPUA CASSON-
FISHER

WAI'ANAE HCC
CYNTHIA ENRIQUEZ

WAIKI'I HCC
DWYNN KAMAI

HCC OF WAIMĀNALO
LOUANNA KAIO



GM-563

Submitted on: 2/28/2021 11:54:46 AM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|----------------------------|---------------------|---------------------------|---------------------------|
| Jonathan Likeke Scheuer | Individual | Support | No |

Comments:

Aloha,

I strongly support the confirmation of Dr. Aurora Kagawa-Viviani to the Commission on Water Resource Management. She meets and exceeds the qualifications for serving.

mahalo,

Jonathan Likeke Scheuer, Ph.D.

GM-563

Submitted on: 2/28/2021 9:21:10 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|------------------|--------------|--------------------|--------------------|
| Jody Fergerstrom | Individual | Support | No |

Comments:

SENATE COMMITTEE ON WATER & LAND

ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN

Testimony in Strong Support of GM563

Submitting for confirmation to the Commission on Water Resource Management, Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Jody and Dale Fergerstrom stand in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

We are thrilled that Aurora is being considered for this appointment!

You have already reviewed her extensive resume of degrees, publications, employment and research experience and know she is well qualified on that level. On a personal level we have known Aurora for over 15 years starting from when she was doing graduate field work here on the Big Island in the Honaunau Forest in Kona. She sometimes boarded with us and later stayed as a friend. Over the years other work and projects often brought her to the Big Island and there have been many deep discussions on land and water. She is smart, well rounded, thoughtful and concerned about hydrology and our 'aina. She is involved with people and communities and has a deep concern, immense knowledge and love for Hawai'i's water, lands and plants. Aurora has professional and personal relationships in many, many areas that we believe would bring a valuable perspective to the Commission.

We urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,

Jody Fergerstrom

Dale Fergerstrom

SENATE COMMITTEE ON WATER & LAND
ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN

Testimony in Strong Support of GM563
Submitting for confirmation to the Commission on Water Resource Management,
Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025

March 3, 2021, 1:00 p.m.
Via Videoconference

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Sharon Ziegler-Chong stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Dr. Kagawa-Viviani for over twenty years, first as an undergraduate intern in my university program, then a graduate student and later a researcher on my island of Hawai'i who mentored students and bridged research with community, to a doctoral student at UH engaged in ensuring researchers and resource managers worked together, to her research position as a colleague at the University of Hawaii where she is leading federal and university researchers in a project synthesizing what is known about forest restoration and its relation to ecohydrology. Since I first met her, Dr. Kagawa-Viviani has stood out as both a learner and a leader. As a young Native Hawaiian researcher, I have watched her develop and hone her abilities and training to help groups seeking answers to community resource questions by bringing groups, research, and resources together. She is an accomplished researcher, whose advanced training in hydrology and awareness of climate change effects in the islands will contribute to planning for changing water resources. In addition to her knowledge, experience and training in hydrology, she is a talented community communicator, familiar with community contexts across the island chain, and has grown a deep understanding and respect for the knowledge that resource managers and community leaders hold regarding the state's resources.

Dr. Kagawa-Viviani would be an asset to the Commission's work in managing complex water issues across Hawai'i, and would bring valuable perspective to the Commission. Her community-led approach to research has given her a rich and deep understanding of areas and needs far from state building on Kalanimoku, and the Commission would benefit from her science acumen and community connection.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,

Sharon Ziegler-Chong

March 1, 2021

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Leah Bremer, PhD, stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for five years through her work in ecohydrology and water resources management at the University of Hawai'i at Mānoa. I first met Aurora when I was a post-doctoral scholar and have continued to engage with her as a research faculty with the University of Hawai'i Water Resources Research Center and the University of Hawai'i Economic Research Organization. Aurora is an amazing water science professional, a wonderful colleague, and an engaged citizen. She is an excellent and meticulous scientist and also has a deep understanding of the social and cultural dimensions of water management that are so critical in Hawai'i. Aurora is deeply empathetic and caring, I have seen her over and over make time in her busy schedule to mentor students, collaborate on important water issues, and dedicate herself to service.

Aurora's training in hydrology and ecology, and her awareness of climate change effects on island hydrology will allow her to contribute to effective planning for water resources in a context of global change. She has a deep familiarity and understanding of differing hydrologic and community contexts across the islands, which will be an important asset to the Commission's work in managing complex water issues across Hawai'i. Aurora is focused, thoughtful, and a careful listener. These qualities, combined with her breadth of experience and training in the sciences and in local community work, would bring a valuable perspective to the Commission that I believe would help to bridge worlds and perspectives in a way few others could.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,

A handwritten signature in black ink that reads "Leah Bremer". The signature is written in a cursive, flowing style.

Leah Bremer, PhD
Water Resources Research Center
University of Hawai'i Economic Research Organization

**SENATE COMMITTEE ON WATER & LAND
ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN**

**Testimony in Strong Support of GM563
Submitting for confirmation to the Commission on Water Resource Management, Gubernatorial
Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025**

March 3, 2021, 1:00 p.m.

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Thomas Giambelluca stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for more than 16 years, beginning when she was a Master's degree student in Botany at the University of Hawai'i at Mānoa (UHM) and continuing through the years following her Master's program completion, including the years she spent as a PhD student in Geography and Environment at UHM under my supervision. She was recently awarded a postdoctoral position with Water Resources Research Center (UHM), where I am the director, and the UH-Hilo Hawai'i Cooperative Studies Unit.

Aurora is uniquely well-qualified to serve on the Commission. First, she brings a very strong background in water science, climate science, and ecology – she is clearly one of the top early-career scholars in the field of ecohydrology, the study of the role of plants in the water cycle. Second, she has deep concern for and experience with finding solutions to community-level problems related to water. And third, she has a broad understanding of Hawai'i's natural and managed water systems and their connections to local culture, livelihoods, recreation, and health.

From my long acquaintance with Aurora, I can assure this committee that she is the ideal candidate for a position on the Commission on Water Resource Management. She is intelligent, well prepared, hardworking, fair minded, and knowledgeable about local water issues.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,



Thomas Giambelluca, PhD
Director, Water Resources Research Center, University of Hawai'i at Mānoa
Professor, Geography and Environment, University of Hawai'i at Mānoa
Email: thomas@hawaii.edu

GM-563

Submitted on: 3/1/2021 12:26:11 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Peter Vitousek | Individual | Support | No |

Comments:

I support Aurora Kagawa-Viviani for appointment to the Water Commission. Aurora is a recent PhD with great expertise in hydrology, especially in how plants interact with the water cycle. She'll be an excellent member of the Water Commission.

Peter Vitousek

**SENATE COMMITTEE ON WATER & LAND
ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN**

Testimony in Strong Support of GM563

**Submitting for confirmation to the Commission on Water Resource Management,
Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025**

March 3, 2021, 1:00 p.m.

Aloha Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

My name is Dr. Rosie 'Anolani Alegado. I am resident of Kahalu'u O'ahu and I stand in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for over 25 years through her scientific career, first as an Environmental Engineering major at MIT, then as a field technician with Peter Vitousek (faculty at Stanford) and most recently as an early career ecohydrologist at the University of Hawai'i Mānoa.

As Vice Chair of the City and County of Honolulu Climate Change Commission, I have sought out Dr. Kagawa-Viviani's expertise on the effects of drought in rural systems under future climate scenarios. Her hands-on experience in Puanui Kohala as well as on the West side of O'ahu means that she not only understands intimately the kinds of data and information that is necessary to make informed decisions about the hydrology of an area, she can collect the data AND analyze the data. In my opinion, the Commission stands to benefit greatly from her knowledge of water science. In particular, as rainfall patterns have and continue to change across Hawai'i, Dr. Kagawa-Viviani can access and explain the most up to date information that climate change effects that impact water resources.

However, Dr. Kagawa-Viviani is more than just an intellectual power house, she is someone who cares about process and has taken the time to understand the real needs of the communities she has worked in. She's not a "helicopter scientist" who lands, grabs what they need and leaves. Dr. Kagawa-Viviani has invested time and energy in the places where she carried out her research and people know that she is a straight shooter. She has the ability to balance analytical and community consideration to make fair decisions and she will bring this experience to the Commission.

Dr. Kagawa-Viviani is extremely well-qualified and I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,



Rosanna 'Anolani Alegado

GM-563

Submitted on: 3/1/2021 7:22:40 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Kevin Chang | Individual | Support | No |

Comments:

Aloha,

My name is Kevin Chang and I have known Aurora Kagawa-Viviani for some 10 years now. In that time I have witnessed her scientific intellect and passion for our community and the natural resources that sustain and define Hawai'i. More specifically I have learned a great deal from her passions concerning the nexus of our islands hydrologic cycles, watersheds and agricultural needs.

In the last two decades a good amount of my career involved work to collectively better our relationships with our environment and each other. In that time a key factor in better caring for Hawai'i's resources has been building a homegrown leadership with a sense of aloha and kuleana for place. Among a new generation of people Aurora is a shining example especially in regard to the needs of the CWRM.

Aloha

Kevin

GM-563

Submitted on: 3/1/2021 9:25:29 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Kilia Purdy-Avelino | Individual | Support | No |

Comments:

Aloha mai e nĀ• kenekoa,

I am a fourth generation homesteader from Ho'olehua, Moloka'i. I support the nomination and confirmation of Aurora Kagawa-Viviani to the Commission on Water Resource Management.

As a Ho'olehua Homestead Agriculture Association executive board member and an active homesteader, we are dependent on our water as our source of life; it is key in utilizing our lands to produce food. This past year, in 2020, I met Aurora by chance via email and a few weeks later, worked along side her on a small water scoping project for our area of Ho'olehua, Moloka'i. The mentorship that Aurora provided voluntarily to two young adult homesteaders has been instrumental for this project and has sparked an interest in them to continue in the field of water education. The passing of knowledge to the next generation is important in sustaining our knowledge base; this is exactly what we experienced through oral histories gathered through this project that Aurora initiated.

Besides the mentorship that Aurora willingly makes time for, she reached out to our small, rural community, where many do not normally turn their attention to. These qualities as well as her education and experience make Aurora a highly desirable candidate that we need to assure the representation of the smaller, rural communities. I urge this committee to please support and confirm Aurora Kagawa-Viviani to the Commission on Water Resource Management.

Mahalo nui loa,

Kilia Purdy-Avelino

Ho'olehua, Moloka'i

**SENATE COMMITTEE ON WATER & LAND
ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN**

Testimony in Strong Support of GM563

**Submitting for confirmation to the Commission on Water Resource Management,
Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025**

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

I would like to express my strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for about 15 years through her work in tropical hydrology in Hawaii. Despite her prestigious educational background and scientific accomplishments, she always made time to explain difficult hydrologic concepts to me, which contributed greatly to my work as a hydrologist within the Commission on Water Resource Management. I believe her ability to speak with authority on the science of water resources and also translate complex hydrologic concepts to the layperson will make her a valuable voice amongst the current Commissioners.

The COVID-19 pandemic has underscored the importance of using science to guide the decisions of policy makers to ensure the well-being of the public. The lack of a Commissioner with Dr. Kagawa-Viviani's background on the current Commission is a perilous gap in the protection of Hawaii's water resources.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,
Jeremy Kimura

**SENATE COMMITTEE ON WATER & LAND
ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN**

Testimony in Strong Support of GM563

**Submitting for confirmation to the Commission on Water Resource Management,
Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025**

March 3, 2021, 1:00 p.m.

Via Videoconference

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Kyle Bosworth stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025. Learned to

I have known Dr. Kagawa-Viviani for a year through her work as an educator at the University of Hawai'i, Mānoa. During the Fall of 2020, I had the opportunity to take Dr. Kagawa-Viviani's Water and Society course. Over the semester, she continuously demonstrated her breadth of experience and training working in the sciences and the local community. She conveyed topics on hydrology, climate change effects, and global/local water resources professionally and receptively. She was very accommodating when I asked for guidance and advice on my research for on-site sewage disposal systems surrounding Kāne'ōhe Bay. We analyzed ecosystem quality, policy, community outreach, and potential socio-political solutions. Dr. Kagawa-Viviani's familiarity with different hydrologic and community contexts across the islands would be an asset to the Commission's work in planning and managing complex water issues. As a community member, an educator, and a scientist, Dr. Kagawa-Viviani carries a valuable perspective that will aid the Commission and the communities of Hawai'i.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,
Kyle Bosworth

GM-563

Submitted on: 3/2/2021 12:38:30 PM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Krisna Suryanata | Individual | Support | No |

Comments:

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

I, Krisna Suryanata, stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for 8 years while she was a graduate student at the University of Hawaii. In my position as a faculty member there (while not in a direct supervisory role), I am familiar with Aurora's academic work both in advancing the research on hydrology and climate change, and in the student governance at the University of Hawaii.

Aurora's commitment to improving the wellbeing of her community is clear, as demonstrated in her various activities throughout the years. She has always been generous with her time in mentoring her junior peers, and sensitive to the diverse needs of the community.

Aurora's training in hydrology and awareness of climate change effects in the islands would contribute to planning for changing water resources. Her familiarity with the different hydrologic and community contexts across the islands would be an asset to the Commission's work in managing complex water issues across Hawai'i. She is thoughtful in seeking ways for research to inform policy making.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

SUPPORT TESTIMONY

March 2, 2021

GM563 Submitting for confirmation to the Commission on Water Resource Management, Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025

Senate Committee on Water & Land
Senator Lorraine R. Inouye, Chair
Senator Gilbert S.C. Keith-Agaran, Vice Chair

Hearing: Wednesday, March 3, 2021 at 1:00 p.m.
Via Videoconference

Aloha a welina mai nei e nā kau kānāwai:

I **STRONGLY SUPPORT** the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

Dr. Aurora Kagawa-Viviani is the perfect choice for this nomination and I commend the advancement of her confirmation. Dr. Kagawa-Viviani has substantial experience in the area of water resource management in Hawai'i and possesses the requisite "substantial experience or expertise in traditional Hawaiian water resource management techniques and in traditional Hawaiian riparian usage." She is a skilled scientist and educator who possesses advanced knowledge in land-based surface water and ground water resources. Her portfolio of academic achievement and community service demonstrates protection and management of these water resources is carried out through resource assessments, planning, and regulation.

- Aurora will exemplify "Ke Kahawai Pono" at the Commission on Water Resource Management and it's responsibility in protecting the water resources of Hawai'i, recognizing that the waters of the State are held in trust for the benefit of the citizens of the State.
- Aurora will make well-considered, fair decisions.
- Aurora's training in hydrology and awareness of climate change effects in the islands would contribute to planning for changing water resources.
- Aurora's familiarity with the different hydrologic and community contexts across the islands would be an asset to the Commission's work in managing complex water issues across Hawai'i.
- Aurora's breadth of experience and training working in the sciences and in local community would bring valuable mauka-to-makai perspective to the Commission.

Dr. Kagawa-Viviani will continue to be an invaluable asset to Commission on Water Resource Management as it carries out its increasingly important kuleana. I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully, me ka `ōia`i`o.

Dr. Leanne K. Fox

2nd Congressional District ● Senate District 18 ● House District 39

GM563



Luna O Nā Papa Alaka'i

Pelekikena

Anthony Makana Paris

Hope Pelekikena 'Ekahi
Randi Fernandez

Hope Pelekikena 'Elua
K ā'eo Kealoha Lindsey

Pu'ukū

Leilani Williams-
Solomon

Kākau 'Ōlelo Ho'opa'a
Roth Puahala

Kākau 'Ōlelo Palapala
Kamuela Werner

Pelekikena Hala Koke
Yvonne 'PeeWee' Ryan

Nā Luna Alaka'i

Alan Akao
Kuni Agard
Puamana Crabbe
Kanani Pali
Marlene Sai
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*Founded in 1964
by Lili'uokalani
Kawānanakoa Morris*

Senate Committee on Water and Land

Wednesday, March 3, 2021

Via Videoconference

State Capitol
415 South Beretania Street

Re: GM563 – Supporting the Confirmation of Aurora Kagawa-Viviani to the
Commission on Water Resource Management


Aloha Chair Lorraine Inouye, Vice-Chair Gilbert Keith-Agaran and members of the
Senate committee on Water and Land:

The Prince Kūhiō Hawaiian Civic Club (PKHCC) **SUPPORTS** the confirmation of Dr. Aurora Kagawa-Viviani to the Commission on Water Resource Management. PKHCC was organized to promote the education and social welfare of people of Hawaiian ancestry and objectives include supporting high ethical standards in business, industry, and the professional fields of enterprise. Dr. Aurora Kagawa-Viviani is well known by our organization. She is qualified to serve on the board, having demonstrated sound business judgement, good moral character, open-mindedness, and critical analytical thinking skills in her dealings with our organization.

The Commission on Water Resource Management (Commission) administers the State Water Code, which was created by the 1987 Hawai'i State Legislature. The Commission's mission is to protect and manage the waters of the State of Hawai'i for present and future generations. We believe that Dr. Aurora Kagawa-Viviani's academic background, professional achievements, Hawaiian cultural grounding, and work experience with local communities will be an asset to the Commission.

Our organization has come to know Dr. Aurora Kagawa-Viviani as a woman of personal integrity as she has worked alongside our members in pursuit of mālama 'āina and aloha 'ohana across our islands. We believe that Dr. Aurora Kagawa will use her expertise to steward Hawaii's water resources well for this generation and those that follow. She would be an excellent addition to the Commission and we wholeheartedly support her confirmation.

Ke Aloha 'āina,


A. Makana Paris
Pelekikena
president@pkhcc.org

GM-563

Submitted on: 3/3/2021 12:59:25 AM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Kamuela Werner | Individual | Support | No |

Comments:

Aloha:

I STRONGLY SUPPORT the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management.

Me ke aloha,

Kamuela Werner

GM-563

Submitted on: 3/3/2021 8:35:57 AM

Testimony for WTL on 3/3/2021 1:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------------|---------------------|---------------------------|---------------------------|
| Amy Tsuneyoshi | Individual | Support | No |

Comments:

SENATE COMMITTEE ON WATER & LAND

ATTN: CHAIR LORRAINE R. INOUE & VICE CHAIR GILBERT S.C. KEITH-AGARAN

Testimony in Strong Support of GM563

Submitting for confirmation to the Commission on Water Resource Management, Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025

March 3, 2021, 1:00 p.m.

Via Videoconference

Dear Chair Inouye, Vice Chair Keith-Agaran, and Members of this Committee,

Amy Tsuneyoshi stands in strong SUPPORT of the Governor's nomination (GM 563) of Aurora Kagawa-Viviani to serve on the Commission on Water Resource Management (Commission) for a term to expire June 30, 2025.

I have known Aurora for over 10 years through her work researching natural resources of Hawaii. She has passion for the work she does, engages the community and is respectful of culture/place and merges it with science.

I urge you to support GM 563 and confirm Aurora Kagawa-Viviani to the Water Commission.

Mahalo for the opportunity to testify on this measure.

Respectfully,

Amy Tsuneyoshi

March 3, 2021

The Honorable Lorraine R. Inouye, Chair
The Honorable Gilbert S.C. Keith-Agaran, Vice Chair
Committee on Water and Land
Hawai'i State Senate
Hawai'i State Capitol, Room 229
Honolulu, Hawai'i 96813

Subject: **GM 563 - Submitting for consideration and confirmation to the Commission on Water Resource Management, Gubernatorial Nominee, AURORA KAGAWA-VIVIANI, for a term to expire 06-30-2025.**

Aloha e Chair Inouye, Vice Chair Keith-Agaran, and members of the Committee on Water and Land:

It is a privilege to offer my strongest support of Dr. Aurora Kagawa-Viviani's nomination to the Commission on Water Resource Management. I have known her for over 25 years and her education credentials and extensive experience in ecology, hydrology, botany, and climate change make her the best qualified candidate for this appointment. I know her to be intelligent, diligent, and thorough. Her resume and career achievements speak for themselves. There is no question that Dr. Kagawa-Viviani will be a tremendous asset for the commission.

Thank you for your consideration of my testimony. I ask that your committee advise and consent to this nomination.

Mahalo nui loa,


Dreana Kalili