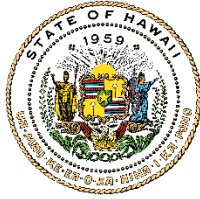


JOSH GREEN, M.D.  
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE  
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
KA 'OIHANA KUMUWAIWAI 'ĀINA

P.O. BOX 621  
HONOLULU, HAWAII 96809

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Testimony of  
DAWN N.S. CHANG  
Chairperson

Before the House Committee on  
ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, February 7, 2023  
8:45 AM  
State Capitol, Conference Room 325

In consideration of  
HOUSE BILL 1200  
RELATING TO THE CONSERVATION AND RESOURCES ENFORCEMENT PROGRAM

House Bill 1200 proposes to require the Department of Land and Natural Resources (Department) to establish an unmanned aircraft systems program, authorizes Conservation and Resources Enforcement Officers to use unmanned aircraft systems (UAS), and requires the Department submit an annual report of the effectiveness of the UAS program to the Legislature. **The Department supports this bill with a proposed amendment, provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget request, and sufficient additional funds are provided.**

The Department acknowledges the potential for a UAS program to aid its Division of Conservation and Resources Enforcement (DOCARE) in carrying out its mission. Such a program can increase the effectiveness of the Department's limited number of enforcement officers by enabling them to survey, monitor, investigate, and obtain evidence more efficiently, especially in difficult to reach areas.

The Department is concerned of the language of the bill which requires DOCARE establish a UAS program by June 30, 2024. A UAS program would require the drafting of a UAS policy, union consultation as well as the procurement of the UAS aircraft, related equipment, and training needed to certify officers to operate these craft. The proposed deadline may be insufficient. The Department recommends that a minimum of two years be considered as a more realistic and sufficient timeframe to successfully implement a UAS program. The Department therefore recommends that Section 2 of the measure be amended to read as follows:

SECTION 2. Chapter 199, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

**"§199- Unmanned aircraft system program.** (a) No later than June 30, [~~2024,~~ 2025], the Department of Land and Natural Resources shall establish an unmanned aircraft systems program, which shall be compliant with all applicable federal and state laws, to assist the conservation and resources enforcement program in carrying out its duties under this chapter.

Mahalo for the opportunity to testify in support with a proposed amendment on this measure.

**HB-1200**

Submitted on: 2/4/2023 12:50:06 PM

Testimony for EEP on 2/7/2023 8:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Barbara Kaaumoana	Hanalei Watershed Hui	Support	Written Testimony Only

Comments:

The Hanalei Watershed Hui strongly supports HB1200. Our organization coordinates the Hanalei Makai Watch Program and we have been very frustrated with DOCARE capacity for response to reports of rule infractions.

Drone use will increase the capacity to observe illegal activities for enforcement.



# Environmental Caucus of The Democratic Party of Hawai'i

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Feb.5<sup>th</sup> 20023

**TO: COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

Rep. Nicole E. Lowen, Chair  
Rep. Elle Cochran, Vice Chair

**CONCERNING: HB1326** (Environment), **HB179** (Deposit Beverage Container materials)  
**HB949** (Renewable Energy), **HB1252** (Energy), **HB347** (Electric Vehicle  
Charging Systems), **HB419** (Residential photovoltaic Energy Generating  
Systems), **HB1200** (Conservation and Resources Enforcement)

**POSITION: Strong Support**

The Environmental Caucus enthusiastically supports the bills listed above. Our state has suffered for decades under increasing waste production and paid out a fortune to find places to ship it to or dumping miscellaneous and questionable refuse into landfills without proper concerns for any residual and permanent contamination of the ground or what lies beneath. Recent implementation of rules concerning plastic products, recyclable packaging and collections, together with the public's increasing awareness of their roles in limiting waste have improved the situation, but not enough. We need more action now and the businesses who create waste products should take the lead in remedying the situation. Any bills which help that to happen are overdue and should be passed.

We are also late in providing electric vehicle infrastructure support for which there is no excuse. We have had the technology for many years. Hawaii is a state uniquely suited for electric vehicle use and any bills which promote the purchase and infrastructure development for them will go further to reduce our dependence on gasoline and the air pollution it causes than any other measures currently being discussed.

Finally bills may be passed and laws put on the books but violations and abuses by ignorant or greedy individuals, or corporate entities are prevalent and the responsible enforcement agencies are overwhelmed and short staffed. We are fortunate to have comparatively inexpensive technology available now to help those agencies do their job. Laws protecting fragile resources are useless if we cannot enforce them.

Please pass the bills through this year, because as time passes the results of not passing them now will be more difficult to deal with,

Martha E Randolph  
DPH Environmental Caucus SCC Representative  
Member of DPH Legislative Priorities Committee  
Precinct 2 Rep, District 27 Council

**Testimony of The Nature Conservancy  
Supporting HB 1200, Relating to the Conservation and Resources Enforcement Program**

**Committee on Energy and Environmental Protection  
February 7, 2023, 8:45 am  
Conference Room 325 via Videoconference**

Aloha Chair Lowen, Vice Chair Cochran, and Members of the Committee:

**The Nature Conservancy (TNC) supports HB 1200**, Relating to the Conservation and Resources Enforcement Program, which would require the Department of Land and Natural Resources (DLNR) to establish an unmanned aircraft systems (UAS) program. It authorizes the Division of Conservation and Resources Enforcement (DOCARE) officers to use unmanned aircraft systems and requires DLNR to submit an annual report of the effectiveness of the unmanned aircraft systems program to the legislature.

Hawai'i's environment is the engine that drives our economy and a natural, recreational, and cultural treasure that supports our island lifestyle and livelihoods. At the same time, our native forests and nearshore reefs and fisheries are threatened by local stresses from overharvest, sedimentation, and invasive species, as well as impacts from global climate change, including increasing storms, sea levels, and temperatures. DLNR is charged with protecting our natural environment, with DOCARE enforcing our natural resource protection laws. Enforcement is vital to ensure that the work to manage the environment is successful and sustainable.

DOCARE needs all possible tools to enforce our conservation laws. UAS, commonly known as drones, are used for conservation and enforcement purposes here in Hawai'i, nationally, and around the world. For example, TNC currently use drones to be more efficient by helping detect invasive species in our remote native forest preserves. DOCARE could similarly utilize the technology to monitor areas they are unable to easily access.

Explicitly authorizing this program, along with the requirements for licensing and privacy protections under complementary state and federal laws, will allow for DOCARE to responsibly utilize drones to enforce laws to protect our 'āina.

Mahalo for the opportunity to provide testimony on HB 1200.

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*The Nature Conservancy of Hawai'i and Palmyra is a non-profit 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 50 coastal communities to help protect and restore the nearshore reefs and fisheries of the main Hawaiian Islands. We forge partnerships with government, private parties, and communities to protect forests and coral reefs for their ecological values and for the many benefits they provide to people.*

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**[www.pupukeawaimea.org](http://www.pupukeawaimea.org)**

Feb. 6, 2023

Re: **HB1200, EEP Hearing Feb. 7, 2023, Room 325, 8:45 am**

Aloha EEP Chair Lowen, Vice Chair Cochran, and Members of the Committee,

**Mālama Pūpūkea-Waimea (MPW)** is a Hawai'i non-profit organization founded on the North Shore of O'ahu in 2005. Our mission is "working to replenish and sustain the natural and cultural resources of the Pūpūkea and Waimea ahupua'a for present and future generations through active community stewardship, education, and partnerships."

For **eighteen years**, we have focused our stewardship and education efforts on the Pūpūkea Marine Life Conservation District (MLCD), one of only three MLCDs on O'ahu.

**MPW strongly supports HB1200.** Since 2006, MPW has been an official "**Makai Watch**" partner with the State Department of Land and Natural Resources (DLNR), Division of Conservation and Resources Enforcement (DOCARE).

MPW is the only Makai Watch program on O'ahu, but it actively working with DOCARE to increase community engagement in marine stewardship on O'ahu and throughout the state-wide Makai Watch network.

As part of MPW's Makai Watch responsibilities, we act as the volunteer "**eyes and ears**" for DOCARE in the Pūpūkea MLCD area. MPW trains annually with DOCARE on education, intervention, monitoring, and reporting. We also have started an **Ocean Education Ambassador** program to expand our efforts to educate new visitors in particular about the need to leave no trace when they visit the MLCD.

Currently, **only two DOCARE officers** are assigned to our large rural district. And while they are both wonderful, these officers are stretched thin, covering mauka to makai from Ka'ena to Wahiawa to Kawela – a **huge area that has many inaccessible and hard to observe areas** along the shoreline as well as mauka.

**A DOCARE drone program**, as authorized under HB1200, would be a **significant benefit** to community and DOCARE efforts to monitor and protect areas like the Pūpūkea MLCD. We often observe – and report – potential illegal activities in the MLCD that occur in areas that are **inaccessible to officers** on foot or vehicle. Poachers know how to

MPW Testimony

Feb. 6, 2023

Page 2 of 2

hide from DOCARE – under cliffs, behind boulders, and along steep shorelines – and to do their illegal activities during the “off hours.”

If DOCARE had drones, it would allow officers to monitor much larger areas, much more efficiently, boost overall coverage, deter sneaky behavior, and reduce violations. Drones also allow more effective evidence gathering, such as clear photos of the scene, the violator, and vehicle and boat registration numbers. These challenges are currently real barriers to prosecution of sometimes blatant violations.

When DOCARE develops the proposed drone program, we understand that an **appropriation** is necessary, as well as certain **policy safeguards** to ensure the program is FAA compliant, protects privacy rights, and maintain **appropriate records** that can be shared with the Legislature and public.

With the Legislature’s support, a new DOCARE drone program will be a **transformative new tool** in the enforcement toolbox for the outstanding women and men who serve as our State DOCARE officers.

MPW looks forward to working with DOCARE on this exciting new program!

Mahalo nui.

Best regards,

/JY/

Jenny Yagodich

Director, Educational Programs & Community Outreach

**HB-1200**

Submitted on: 2/6/2023 9:04:17 AM

Testimony for EEP on 2/7/2023 8:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Damien Kenison	Kauhako Ohana Association	Support	Written Testimony Only

Comments:

I am submitting this testimony in support of HB1200

The ability of DOCARE to protect our resources is severely limited because of the large area of their jurisdiction here on Hawaii Island. To be able to use drones to enhance their law enforcement capabilities will be a big help in ensuring that fishermen are following the guidelines that protect our i'a from inappropriate and unsustainable harvesting practices.

Please support this bill which will benefit all of us and future generations

Mahalo,

Damien Kenison

Kauhako Ohana Association





February 6, 2023

Chairman Nicole Lowen  
House Committee on Energy & Environmental Protection

**RE: SUPPORT OF HB 1200**

Dear Chairman Lowen,

As an organization that represents member companies who are participants in the UAS industry in Hawaii, we are reaching out today to express our support for HB 1200. This bill requires the Department of Land and Natural Resources to establish an unmanned aircraft systems (UAS) program. State drone programs such as these are crucial in the advancement of the autonomous industry, and continued support of these programs will foster the growth of this emerging technology.

The Association for Uncrewed Vehicle Systems International (AUVSI) is the world's largest nonprofit organization dedicated to the advancement of uncrewed systems and robotics, representing corporations and professionals from more than sixty countries involved in industry, government, and academia.

The use of UAS by state agencies is a notable application that provides immense public benefit. Drones allow for an expansion of and improvement in the responsibilities and efficacy of state agencies and environmental conservation. Over the past few years, drones have allowed researchers at the University of Hawaii to study why Waikiki Beach's shoreline is eroding<sup>1</sup> and to rediscover nearly extinct plant species<sup>2</sup>. In creating a space for the Department of Land and Natural Resources to take advantage of this emerging technology, Hawaii is providing its agencies with cutting edge tools for success.

With this measure, Hawaii is facilitating UAS growth and providing the state with the means to reap technology's public and environmental benefits. We appreciate your consideration of our views and welcome the opportunity to address any questions you may have about implementation, policy, or development regarding drone operations in Hawaii.

Respectfully,

A handwritten signature in black ink, appearing to read "Michael J. Smitsky". The signature is fluid and cursive, with a large, stylized initial "M".

Mike Smitsky, Esq.  
Vice President, Government Affairs  
[msmitsky@auvsi.org](mailto:msmitsky@auvsi.org)

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<sup>1</sup> <http://manoa.hawaii.edu/news/article.php?ald=12268>

<sup>2</sup> <https://www.reuters.com/business/environment/how-daredevil-drones-find-nearly-extinct-plants-hiding-cliffs-2022-12-10/>

**HB-1200**

Submitted on: 2/1/2023 1:05:32 PM

Testimony for EEP on 2/7/2023 8:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Victor K. Ramos	Individual	Support	Written Testimony Only

Comments:

SUPPORT: This will benefit DLNR Law Enforcement Officers, in particular, to quickly cover a large area of land and or hard to reach places that require real time access.

Searches, research, video & audio communication, will be the benefits of their enhance capabilities.

**HB-1200**

Submitted on: 2/4/2023 2:04:19 PM

Testimony for EEP on 2/7/2023 8:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Gerard Silva	Individual	Oppose	Written Testimony Only

Comments:

No drons in the Air. This should be forbin in Hawaii!!!!

Denise Antolini  
59-463 Alapio Road  
Pūpūkea, HI 96712

Re: HB1200, EEP Hearing Feb. 7, 2023, Conference Room 325, 8:45 am

Aloha EEP Chair Lowen, Vice Chair Cochran, and Members of the Committee,

I write in **strong support of HB1200** – “Drones for DOCARE”!

DOCARE has enormous responsibility to oversee the enforcement of the laws that protect our State’s natural and cultural resources -- across **one million** acres of state land and **three million** acres of state ocean waters. An unmanned aircraft system (UAS), or drone, program would add significant capacity to DOCARE, allowing new methods for monitoring, investigating, and evidence gathering with modern, efficient, and cost-effective technology.

Given the exponential increase in the use of drones in Hawai’i and across the U.S. (and world) in recent years by individuals, businesses, and governments, it makes sense for the Legislature to support a drone program for our State natural resources law enforcement agency. **Drone can be a very effective fact-gathering tool, used within appropriate policies and legal boundaries.**

For many years, as a law professor devoted to environmental protection and a community member involved in marine stewardship programs, I have worked on various projects to assist DOCARE build capacity and its enforcement toolkit. For example, through my position at the William S. Richardson School of Law, I was the principal investigator for a grant in 2018-19 that assisted DOCARE with designing the new DOCARE Academy, which is now completing training for its second class -- 42 new recruits who will graduate next month. I also worked with DOCARE on the passage of the “ASSET” bill (Act 67, SB2453) in 2016 to expand the enforcement options for sentencing marine resources violators to include community service and an education course. I have also collaborated with the State Judiciary on the biennial trainings for the Hawai’i Environmental Court, established in 2015 by the Legislature. And, for the past ten years, since 2014, I have partnered with DOCARE to place a recent law graduate – a full-time “law fellow” – inside DOCARE to provide legal research and writing capacity particularly related to supporting the enforcement cases in the Environmental Court.

Recently, as a way to further build DOCARE’s capacity, I worked with two Richardson law students, Sophia Morgan and Kanani Smull, to analyze the potential for DOCARE to develop a drone program. We reviewed drone programs recently established by law enforcement agencies in Alaska,<sup>1</sup> Florida,<sup>2</sup> California,<sup>3</sup> and Texas,<sup>4</sup> and also found that the Honolulu Police Department adopted a drone policy in 2021.<sup>5</sup> These programs provide excellent yet diverse models for a new DOCARE drone program.

In my view, to keep up with modern law enforcement methods, and to match the methods of increasingly clever and elusive violators of our state natural resources laws, a drone program is extremely important for DOCARE. I believe DOCARE *could* legally establish a drone program without a specific legislative authorization but as a matter of good public policy, it is best for DOCARE to have express statutory authority. However, the program must be **funded**, and the program must be **transparent** to ensure public confidence and support.

I respectfully suggest two amendments.

First, add an **appropriation of \$125,000 a year** for two years, totalling **\$250,000**. This amount is based on information from the Texas Parks and Wildlife Department, Law Enforcement Division, which reported a budget of \$235,445 for its UAS program in 2019-2020.<sup>6</sup> Hawai’i is smaller than Texas, of course, and DOCARE

may be able to start and run the program for less, once initially established and officers are trained and equipped.

Second, clarify the **reporting requirement**, to aid legislative oversight -- as well as public confidence, transparency, and accountability -- again modeled on the statutorily required reporting provisions of the Texas program (Texas Government Code Sec. 423.008) (see note 4 below for the latest report), as follows:

Page 3, line 7-10:

~~(3) Require the department of land and natural resources to maintain detailed records of unmanned aircraft systems usage and the effectiveness of the program; and~~

Page 3, line 11-13:

(43) Beginning January 1, 2026, require a biennial report to the legislature on the unmanned aircraft system program for the preceding two-year period; and

(4) ensure the report

(a) is available to the public on the department website,

(b) includes a log of (i) each use of an unmanned aircraft indicating date, time, location, and the types of incidents and justification for the use, (ii) the civil or criminal investigations aided by the use of the unmanned aircraft, (iii) any other uses of the unmanned aircraft, and

(c) a description of the program costs for the reporting period.

Please let me know if I may assist with any questions about this bill. We would be happy to conduct additional research to support the establishment of an effective drone program for DOCARE.

Mahalo nui loa for passing and strengthening this important bill!

Best regards,



Denise Antolini

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<sup>1</sup> Alaska Stat. Ann. § 18.65.902.

<sup>2</sup> Fla. State. Ann. § 934.50(4).

<sup>3</sup> See, e.g., Drone Program, City of Chula Vista Police Department (July 2, 2022), <https://www.chulavistaca.gov/departments/police-department/programs/uas-drone-program>. Since its first drone operation on October 22, 2018, CVPD's drones have responded to 11,375 calls, assisted in 1,324 arrests, been first on scene 6,467 times, and avoided the need to dispatch a patrol unit 2,874 times. Id. CVPD posts information on each flight publicly and provides public forums to involve their community in the program. Id. Chief Roxana Kennedy has called the Drone Program "one of her most important tools in improving situational awareness, de-escalating dangerous situations, and protecting her officers and community." Id. See also UAS-Unmanned Aerial Systems, Placer County Sheriff's Office (last visited July 1, 2022), <https://www.placer.ca.gov/5822/UASUnmanned-Aerial-System>.

<sup>4</sup> Texas Parks and Wildlife Department, Law Enforcement Division, 2019-2020 Small Unmanned Aircraft Systems Legislative Report (Dec. 31, 2020), <https://tpwd.texas.gov/warden/media/final-2019-2020-uas-report.pdf>.

<sup>5</sup> Small Unmanned Aircraft System (sUAS) Policy, HPD Policy Number 2.73, 1 (May 19, 2021), <https://www.honoluluupd.org/wp-content/uploads/2021/05/HPD-Policy-273-05-19-2021.pdf>.

<sup>6</sup> See the Texas report, supra note 4, at page 3.