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Statement of
LEO R. ASUNCION
Planning Program Administrator, Office of Planning
before the
SENATE COMMITTEES ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM AND WATER AND LAND
Wednesday, March 13, 2019
1:15 PM
State Capitol, Conference Room 229

in consideration of
HB 588, HD1
RELATING TO GREEN INFRASTRUCTURE.

Chairs Wakai and Kahele, Vice Chairs Taniguchi and Keith-Agaran, and Members of the Senate Committees on Energy, Economic Development, and Tourism, and Water and Land.

The Office of Planning (OP) supports House Bill 588, HD1, provided that its passage does not adversely impact the priorities indicated in the Executive Budget. HB 588, HD1 appropriates funds for the State's Sustainability Coordinator to complete a comprehensive green infrastructure study and plan.

The Office of Planning appreciates the opportunity to comprehensively identify green infrastructure opportunities, and green infrastructure planning and development best practices statewide. State green infrastructure plans, like this proposal, can identify where the State can save on water management costs, recharge water, decrease pollution, lower flooding risks, sequester greenhouse gases, and mitigate and adapt to Hawaii's changing climate.

Thank you for the opportunity to offer support on HB 588, HD1.

Testimony in support of HB588 HD1

COMMITTEE ON WATER AND LAND
COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

Hearing Wednesday, March 13, 2019 1:15 p.m.

Aloha Chair Wakaie, Vice Chair Taniguchi and Committee Members,

I am writing in strong support of HB588 HD1.

HB588 takes the first step towards planting trees and expanding the tree canopy in our State. Expanding the urban canopy will provide multiple benefits, including reducing the heat island effect, absorbing storm water, and beautifying the city of Honolulu. Investing in green infrastructure will save our State money in the long run and is an important adaptation to climate change.

The best time to plant a tree was 20 years ago, the second-best time is now. Please support this bill.

Mahalo,

Dr. Lisa Marten

Executive Director
Healthy Climate Communities
healthyclimate@hawaii.rr.com

HB-588-HD-1
Submitted on: 3/11/2019 9:18:13 PM
Testimony for EET on 3/13/2019 1:15:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Scott Foster	Testifying for Hawaii Advocates For Consumer Rights	Support	No

Comments:

HB 588 HD1 Requires the State Sustainability Coordinator of the Office of Planning to complete a holistic and comprehensive study and plan for green infrastructure opportunities in the State including the Green Infrastructure Study and Plan and an appropriation to complete the green infrastructure study and plan. (HB588 HD1).

Mahalo for supporting this excellent and wise legislation.

Scott Foster
Communications Director
Hawaii Advocates For Consumer Rights
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LATE

March 13, 2019

Committee on Water and Land

Senator Kaiali'I Kahele, Chair
Senator Gilbert S.C. Keith-Agaran, Vice Chair
Hawai'i State Capitol, Room 213
Honolulu, HI 96813

Committee on Energy, Economic Development, and Tourism
Senator Glenn Wakai, Chair
Senator Brian T. Taniguchi, Vice Chair

Hawai'i State Capitol, Room 407
Honolulu, HI 96813

RE: HB 588, on Green Infrastructure and HB 1558, Hawai'i 2050 Sustainability Plan Update

Dear Chair Kahele, Vice Chair Keith Agaran, Chair Wakai, and Vice Chair Taniguchi,

On behalf of the U.S. Green Building Council (USGBC), our nearly 9,000 member companies nationwide, and our strong community in Hawaii, we appreciate the opportunity to provide this letter of support for Senate Bill 588 (SB 588), on green infrastructure and Senate Bill 1558 (SB 1558), the Hawai'i 2050 Sustainability Plan Update.

USGBC and LEED in Hawai'i

USGBC is a nonprofit organization committed to transforming the way all buildings and communities are designed, built, and operated to support a more sustainable, resilient, and prosperous environment that improves the quality of life for all.

Our flagship green building rating system, LEED, continues to grow in the Hawai'i market, with over 200 certified projects amounting to more than 19 million square feet in total.[1] Our education and professional credential programs support green building in Hawai'i as well, with more than 1,300 Hawai'ians holding a LEED Accredited Professional (AP) or a LEED Green Associate credential.

LEED and Climate Resilience

USGBC is committed to building and design practices that are sustainable, efficient, and economically sound. Resilience is a clear extension of this work, and LEED works to encourage and support resilience outcomes in the built environment. For projects to earn LEED certification, they must meet high standards for sustainability and efficiency, thus positioning them to maximize their overall resilience as well. In order to moderate the intensifying effects of climate change on our communities and infrastructure, LEED

[1] State Market Briefs, U.S. Green Building Council.

is a critical tool that has been proven effective with industry stakeholders, including building owners and occupants.

USGBC works to ensure project teams are supported in their resilience efforts, including providing guidance to facilitate identification of opportunities to improve the durability and sustainability of projects pursuing LEED.[2] Also, LEED helps guide project teams in reducing their greenhouse gas emissions and carbon footprints associated with their building projects. According to a recent study, buildings certified under LEED Operations and Maintenance (LEED O+M) were associated with lower levels of greenhouse gases (GHGs). Specifically, LEED buildings were associated with 50 percent fewer GHGs from water use, 48 percent fewer GHGs from solid waste input, and five percent fewer GHGs from transportation.[3] LEED gives project teams the tools they need to effectively mitigate the effects of climate change, as well as save resources, and protect the well-being of occupants and surrounding communities.

Like LEED, SITES is designed to help communities mitigate and adapt to the effects of climate change, though specifically developed to support sustainable land development. With input from landscape architects, designers, planners, ecologists, and engineers, resilience is one of the key goals of the SITES system. Credits include focus on green infrastructure, sustainable construction and maintenance, low carbon output, and more. SITES is more than just a system for individual landscape projects – SITES guides projects to enhance their resilience, thus ensuring readiness for a rapidly changing climate.[4]

USGBC Supports HB 588 and HB 1558

USGBC offers our strong support of both HB 588 and HB 1558, legislation that is before the committees today. HB 588 would mandate a comprehensive state-wide study on opportunities for green infrastructure in Hawai'i, and HB 1558 would require an update to the Hawai'i 2050 sustainability plan, and ensure that climate change mitigation and adaptation priorities are incorporated in any updates. Each of these proposals will support Hawai'i in its continued progress in enhancing resilience of its built environment and mitigating the effects of climate change.

USGBC commends the state of Hawai'i for its leadership on these critical issues. We thank the Committee and Water and Land and the Committee on Energy, Economic Development, and Tourism for bringing these bills up for consideration today. USGBC urges the members of each committee to support HB 588 and HB 1558, and move towards their swift passage.

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[2] "Profiles of Resilience: LEED in Practice," USGBC Resources.
[3] "Quantifying the Comprehensive Greenhouse Gas Co-Benefits of Green Buildings," Center for the Built Environment, University of California-Berkeley (2014).
[4] "Greenspace for Good: Using the SITES System to Advance Resilience," USGBC Resources.

Thank you for your consideration of our remarks. Please contact us if we can be of any assistance or have any questions.

Sincerely,

Elizabeth Beardsley. P.E.
Senior Policy Council
U.S. Green Building Council

From: Ian Tierney
To: WTL Testimony
Subject: Support for HB 588, HD1, relating to Sustainable Infrastructure
Date: Tuesday, March 12, 2019 9:01:04 AM

Aloha Chair Kahele, Vice Chair Keith-Agaran, Chair Wakai, Vice Chair Taniguchi, and members of the Committees,

I am testifying in support of House Bill 588 HD 1.

This bill is important and I support it because Green Infrastructure has the potential to reduce the impacts of climate change. I have personally toured several great examples of green infrastucture that exist in Hawaii, both natural and man made.

In addition to being a resident of Honolulu, I volunteer on the board of the US Green Building Council Hawaii Chapter, which is dedicated to best practices in the built environment. On behalf of our 100+ local members, I support this bill.

Thank you for considering my testimony.
Ian Tierney
Honolulu, HI 96816

LATE

I attach two items one is the testimony I delivered at the Manoa Board meeting earlier this year

in regards to the engineering work that will inevitably scar the Manoa landscape and destroy
the roads during construction. It is the way with engineering.

The Manoa market place does not have permeable paving it is 5.8 acres of rain catchment that
partly helps to fill up the Alawai, we are spending $350Million preparing for the 100 year flood.

For 10 years I have been advocating permeable paving for areas of Oahu that are built in natural
rain forest areas

Please also find a link to some brilliant research done by a farmer on what
This is an amazing solution to reverse climate change with a standing ovation

A M A Z I N G

https://www.youtube.com/watch?v=vpTHi7O66pI
happens when you rehydrate land in Australia the same principles apply to the land anywhere.

I would appreciate some serious planning along the lines the video shows.
--
Michael Krijnen
Architect
Building Plan Examiner ICC

Questions for tonight. Have you answers what are the options where are your examples where is your model?

"Surface runoff produces some of the worst environmental problems in Hawai'i and elsewhere, including soil erosion and flash flooding.
As noted earlier, surface runoff is determined by the properties of the surface itself. If it is compacted, saturated with water, or has an impermeable coating, like concrete, runoff will be high. If it is highly porous, like bare lava rock or loose soil, runoff will be low or non-existent." 1990 Report.
An example of poor planning is the recent repaving of Manoa Shopping Center, with the same old same old oil based asphalt. The whole of the parking lot could be a catch basin or could have been paved with a porous asphalt or concrete, that is what you should do in a rain forest area.

The whole shopping Center could be "green" if it dealt with the water hitting the roofs and parking lot, 5.8 acres, was dealt with on site, by making a sump on site to make an injection well that water would be filtered and used to recharge the fresh water lens.

Porous Asphalt - National Asphalt Pavement Association

www.asphaltpavement.org/index.php?option=com_content&view=article...

Porous asphalt pavements offer developers and planners a new tool in their toolbox for managing storm water. These pavements, used mostly for parking lots , ...

- How much would it cost to replace secondary, existing roads with porous surfaces to give you the area needed to absorb this extra water in the 100 year flood?
- From the 1990's report what unpaved land area from the homes of the 65,000 residents could be made available for small on site percolation, driveways, catch basins, foot paths etc for the rain water that is now directed into the streams?
- What was the basis for the study used to come up with the plan?

The only information on line is a study from thirty years ago, 1990. From that report Manoa stream and Palolo stream have water gage (gauge) monitors Makiki stream does not, the Alawai Canal* capacity is the sum of those which we do not know!
We have from that report the statement that channelization is not a good thing because it does not let the water drain through the stream bed. We do not know the amount of non draining stream bed, is in these three water courses.

- Overall 70% of streambeds have been channelized on Oahu, is this a figure that we know, for the specific project design?
- Has the Corps done any innovative thinking to come up with a solution to this "dry" (non water absorbing) stream bed?
- In your figures for the design you have what is the area and the percolation rate in the retention basins required to deal with the flood waters?
- Is there a drainage plan that we have that tells us where the water is currently being directed?
- It appears that there is no effort to have hydropower installed in the scheme. Would there be a study on that in the $345Million project that could offset the expense of the project?
- Have you any computer modeling that the public can see? Where in the USA or in the world is there a similar project? Or is this a dakine original.

*Stream 3-3-07 Table 7