JOSH GREEN, M.D.
GOVERNOR | KE KIAʻĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIAʻĀINA

STATE OF HAWAIʻI | KA MOKUʻĀINA ʻO HAWAIʻI
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA ʻOIHANA KUMUWAIWAI ʻĀINA
P.O. BOX 621
HONOLULU, HAWAII 96809

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RYAN K.P. KANAKAʻOLE
FIRST DEPUTY

CIARA W.K. KAHAHANE
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

Testimony of
RYAN K.P. KANAKAʻOLE
Acting Chairperson

Before the Senate Committees on
AGRICULTURE AND THE ENVIRONMENT

Friday, March 27, 2026
3:05 PM
State Capitol, Conference Room 224

In consideration of
SENATE CONCURRENT RESOLUTION 129
and
SENATE RESOLUTION 121
RELATING TO URBAN TREE CANOPY

Senate Resolution 121 and Senate Concurrent Resolution 129 reaffirm support for expanding programs and projects that increase tree canopy coverage and plant shade trees in urban areas to help reduce the effects of urban heat islands across the state. **The Department of Land and Natural Resources (Department) strongly supports these resolutions.**

Urban heat is an escalating and unequal problem caused by widespread pavement, roads, concrete structures, and other surfaces that absorb heat. It mainly affects kūpuna, keiki, and communities with minimal tree cover. Currently, Hawaiʻi faces more frequent extreme heat and intense rainfall, which puts additional pressure on our infrastructure.

Urban trees represent a proven, cost-effective infrastructure solution that tackles these issues. Tree canopies help lower temperatures, enhance air quality, and promote public health. Trees and healthy soils are crucial for stormwater management—they catch and slow rainfall, increase infiltration, and reduce runoff that can overwhelm drainage systems and carry pollutants to nearshore waters. These benefits are vital in mauka areas, where erosion conditions directly affect reefs, fisheries, and coastal resources.

The State has already demonstrated leadership in this area. Department programs, including the Kaulunani Urban and Community Forestry Program and its pilot projects, Shade Trees for Schools and Community Coconut, provide successful models for coordinated investment, community partnerships, and long-term stewardship of urban forests. Expanding these efforts is essential to addressing gaps in equitable tree canopy coverage.

This work reflects Hawai‘i’s traditional ahupua‘a system, which managed water and resources from mauka to makai through living systems that slowed, absorbed, and filtered rainfall. Reinvesting in tree canopy and healthy soils is a modern application of these principles.

The Department promotes coordinated statewide efforts to evaluate heat and canopy conditions, identify high-need areas, and incorporate tree planting and green infrastructure into planning and capital improvements.

We also highlight the significance of “right tree, right place, right care” to promote long-term advantages and reduce risks. Treating trees and healthy soils as infrastructure requires planning, funding, and maintaining them in tandem with traditional stormwater systems.

Recent storms have demonstrated that areas with many impermeable surfaces tend to face more flooding and water quality problems. Green infrastructure can help lower these risks. Increasing tree canopy coverage is therefore not only an effective way to reduce heat but also an essential part of building climate resilience.

The Department is prepared to collaborate with partners to promote these efforts statewide.

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

Date: March 25, 2026

To: Senator Mike Gabbard, Chair
Senator Herbert M. "Tim" Richards III, Vice Chair
Members of the Senate Committee on Agriculture and Environment

Re: Support for SCR 129/SR 121, Affirming Support for the Expansion of Programs and Projects That Increase Tree Canopy Coverage and Install Shade Trees in Urban Areas to Mitigate the Effects of Urban Heat Islands Across the State

Hrg: March 27, 2026, 3:05 PM, Conference Room 224

Hawai'i Public Health Institute (HIPHI)[1] and the Healthy Eating, Active Living (HEAL)[2] are in **support of SCR 129/SR 121**, which affirms support for the expansion of tree canopy programs to address urban heat islands across Hawai'i.

Hawai'i is experiencing hotter days and nights, with urban areas such as Honolulu, Kahului, and parts of the leeward coasts bearing the brunt of rising temperatures due to the urban heat island effect. Dense development, dark pavement, and limited vegetation cause these areas to heat up more during the day and cool down less at night, increasing the risk of heat stress, especially for kūpuna, keiki, outdoor workers, and low-income households without access to air conditioning. Expanding urban tree canopies is a proven, cost-effective method of cooling neighborhoods, improving health, and supporting climate resilience.[3]

SCR 129/SR 121 advances the Hawai'i Physical Activity and Nutrition (PAN) Plan 2030, which calls for policy, systems, and environmental changes to support active living and health equity.[4] Objective 6 of the plan is to "increase by 50 miles the total miles of low-stress pedestrian infrastructure including, but not limited to, sidewalks and trails," and one of the identified strategies is to "develop policies to encourage shade tree planting, to increase canopy cover, on high-volume

---

[1] Hawai'i Public Health Institute's mission is to advance health and wellness for the people and islands of Hawai'i. We do this through expanding our understanding of what creates health of people and place, fostering partnerships , and cultivating programs to improve policies, systems, and the environments where people live, learn, work, age, and play.

[2] The Healthy Eating + Active Living (HEAL) Coalition, formerly known as the Obesity Prevention Task Force, was created by the legislature in 2012 and is comprised of over 60 statewide organizations. The HEAL Coalition works to make recommendations to reshape Hawai'i's school, work, community, and health care environments, making healthier lifestyles obtainable for all Hawai'i residents.

[3] "Urban tree canopy has greater cooling effects in socially vulnerable communities in the US", Weiqi Zhou, 2021.

[4] Hawai'i Physical Activity and Nutrition (PAN) Plan 2030.

pedestrian corridors and trails." By expanding shade tree programs in urban areas, this resolution operationalizes that objective.

From a public health and built environment perspective, shaded, tree-lined streets and parks encourage physical activity by making it more comfortable to walk, bike, and play outside. People are more likely to choose active transportation to get to school, work, or transit when routes are pleasant, shaded, and perceived as safe, which contributes to lower rates of chronic disease and supports mental well-being.[5]

By affirming strong support for urban tree canopy expansion, the legislature can send a clear signal that trees are not just amenities, but vital infrastructure to address a warming future in Hawai'i. This resolution will support community-based organizations, schools, and neighborhood groups already working on the ground to plant and care for trees, while positioning the state to develop interagency partnerships to establish tree canopies in heat-stressed areas to bolster our efforts to strengthen climate regulation and heat mitigation.[6]

For these reasons, we respectfully urge you to adopt this resolution. Expanding tree canopies and shade trees in urban areas is a practical way to reduce urban heat islands, protect public health, and build climate resilience for all residents of Hawai'i.

Mahalo,

Kris Coffield
Policy and Advocacy Associate

[5] "Street-level neighborhood greenery linked to active transportation: A case study in Milwaukee and Green Bay", WI, USA, Wei-Lun Tsai, Landscape and Urban Planning, Vol. 191, 2019.
[6] "The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas", Jeremy Hoffman, Climate, 2020.

SCR-129
Submitted on: 3/24/2026 5:00:11 PM
Testimony for AEN on 3/27/2026 3:05:00 PM

Submitted By	Organization	Testifier Position	Testify
Ted Bohlen	Testifying for Climate Protectors Hawai‘i	Support	Written Testimony Only

Comments:

SUPPORT!

SCR-129
Submitted on: 3/25/2026 9:35:02 AM
Testimony for AEN on 3/27/2026 3:05:00 PM

Submitted By	Organization	Testifier Position	Testify
Jennifer Maydan	Testifying for Kaulunani Urban & Community Forestry Advisory Council	Support	Written Testimony Only

Comments:

Testimony of the Kaulunani Urban & Community Forestry Advisory Council
In Strong Support of S.R. 121 and S.C.R. 129
Relating to Urban Tree Canopy and Heat Island Mitigation

Chair and Members of the Agriculture and Environment Committee:

The Kaulunani Urban & Community Forestry Advisory Council strongly supports Senate Resolution 121 and Senate Concurrent Resolution 129, which affirm the importance of expanding tree canopy and shade in urban areas to address increasing heat across Hawai‘i.

The Kaulunani Advisory Council acts in an advisory capacity to the Kaulunani Urban & Community Forestry Program in the Division of Forestry and Wildlife of the DLNR. The Council provides recommendations, direction, and strategic guidance for an array of community forestry initiatives, including reviewing grant applications, recommending approval for community projects, and advising on educational and outreach efforts.

The Council is composed of a diverse group of professionals representing a range of sectors and experience across all counties of Hawai‘i. Members bring expertise in planning, arboriculture, education, community development, conservation, and public land management, and include representation from county and state agencies, nonprofit organizations, and community-based initiatives across the islands of O‘ahu, Hawai‘i, Maui, and Kaua‘i. This diversity ensures that urban forestry strategies are informed by local knowledge and responsive to the unique needs of communities statewide.

From this vantage point, the Council sees firsthand the increasing demand for community-driven tree planting, education, and stewardship initiatives. Through Kaulunani's grant programs and partnerships, communities across Hawai‘i from schools and neighborhood groups to nonprofit organizations are actively working to plant, care for, and expand urban tree canopy. We also see that much more remains to be done by state and county agencies to institutionalize, expand, and enhance tree canopy and tree care in urban spaces. We urge agencies to see and treat trees as living infrastructure, not just 'beautification'. As with other types of infrastructure, sustained investment in appropriate maintenance is critical.

These efforts are increasingly important as urban heat intensifies. Many communities, particularly those with limited canopy, experience higher temperatures due to the prevalence of heat-absorbing surfaces such as roads and rooftops. Planting and expanding tree canopy is one of the most immediate and effective ways to provide shade, reduce heat exposure, minimize runoff and improve quality of life at the neighborhood scale.

At the same time, the Council recognizes that the benefits of trees extend well beyond heat mitigation. Trees and healthy soils support water absorption, reduce runoff, and help protect downstream coastal resources. In short, trees are long-term community assets that compound value year after year.

S.R. 121 and S.C.R. 129 reinforce the importance of coordinated, statewide action. From the Council's perspective, advancing these resolutions will help strengthen community-based programs, support partnerships between and among agencies, and expand access to the many benefits of urban trees.

The Kaulunani Advisory Council stands ready to continue providing guidance and support to advance urban and community forestry initiatives across Hawai‘i.

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

Jennifer Maydan, Chair

(on behalf of the Kaulunani Urban & Community Forestry Advisory Council)

Senate Committees on Agriculture & Environment

Testimony on SCR 129/SR 121

Affirming the Support for Expansion of Programs and Projects that Increase Tree Canopy Coverage and Shade Trees

March 27th, 2026 **3:05 PM** **Room 224**

Testimony of the Hawai‘i Climate Change and Health Working Group

In Support of SCR 129/ SR 121
Affirming the Support for Expansion of Programs and Projects that Increase Tree Canopy Coverage and Shade Trees

Aloha Chair Gabbard, Vice Chair Richards, and Members of the Committee on Agriculture & Environment,

The Climate Change and Health Working Group (CCHWG) **supports SCR 129/SR 121**, which affirms support for expanding programs and projects that increase tree canopy coverage and install shade trees to mitigate the effects of urban heat islands across Hawai‘i.

Who We Are and Why This Matters

CCHWG is a cross-sector collaborative committed to strengthening Hawai‘i’s public health resiliency in response to climate change. Guided by the principles of equity, justice, and aloha, we work across disciplines and communities to research, communicate, and advocate for policies that reduce climate-related health risks, particularly for communities that are disproportionately burdened.

Urban Heat Is a Growing Public Health Risk

Urban heat island effects are already increasing heat exposure across Hawai‘i, raising the risk of heat-related illness for residents. Extreme heat is a public health concern that affects keiki, kūpuna, individuals with preexisting health conditions, and communities with limited access to shade and cooling resources.[1]

Tree Canopy as a Proven Health Intervention

Expanding tree canopy coverage is one of the most effective, nature-based solutions to reduce urban heat.[2] Shade trees lower ambient and surface temperatures, reduce heat exposure, and provide additional co-benefits, including improved air quality, stormwater management, and mental well-being. These benefits directly contribute to healthier, more resilient communities.

Addressing Inequities in Heat Exposure

Recent assessments show that tree canopy coverage is not evenly distributed, with lower-income communities often experiencing less shade and higher heat exposure. Expanding tree canopy in priority areas is a practical and equitable strategy to reduce these disparities and protect communities that are most at risk.[3]

A Coordinated, Statewide Approach

SCR 129/SR 121 appropriately recognizes the need for collaboration across state and county agencies to assess heat vulnerability, identify priority areas, and integrate shade strategies into infrastructure, housing, and community planning. Building on existing programs such as Kaulunani and Shade Trees for Schools, this measure supports a coordinated and scalable approach to heat mitigation.

Mahalo for the opportunity to provide testimony in strong support of SCR 129/SR 121,

Cristina De Leon

The Climate Change and Health Working Group

[1] “Twenty-Seven Ways a Heat Wave Can Kill You: Deadly Heat in the Era of Climate Change”, Mora et. al, 2017.
[2] “Benefits of Trees and Vegetation", U.S. Environmental Protection Agency, 2025.
[3] “Urban Tree Canopy Has Greater Cooling Effects in Socially Vulnerable Communities in the US”, Weiqu et. al, 2021.

March 25th, 2026

Testimony in Strong Support of S.R. 121 and S.C.R. 129
Affirming Support for the Expansion of Tree Canopy and Urban Shade Programs

Aloha Chair and Members of the Committee,

The Outdoor Circle strongly supports S.R. 121.

For more than a century, our organization has worked to protect and enhance Hawai'i's environment—not only in its natural landscapes, but in the everyday places where people live, walk, learn, and gather. This resolution recognizes something we are now experiencing in real time: Hawai'i's urban areas are getting hotter, and the consequences are not abstract. They are immediate, measurable, and increasingly inequitable.

Urban heat island effects are no longer a future concern. Across Honolulu and other developed areas of the state, we are seeing higher surface temperatures, reduced comfort in public spaces, and increased health risks—particularly for children, kūpuna, and communities that already have the least access to shade. The loss and uneven distribution of tree canopy is a central driver of that reality.

This is where the importance of this resolution becomes clear.

Trees are not decorative. They are infrastructure.

A healthy urban tree canopy lowers ambient temperatures, reduces heat retention in pavement and buildings, improves air quality, manages stormwater, and contributes to both physical and mental well-being. Just as importantly, it does so in a way that is visible, equitable, and rooted in place. Shade trees are one of the few climate adaptation strategies that people can feel immediately and directly.

S.R. 121 appropriately frames this as a statewide priority and, critically, emphasizes coordination. TThe resolution's call to assess canopy distribution, identify priority heat-vulnerable areas, and integrate tree planning into capital improvement projects and development decisions is exactly the level of integration that is needed. If we are serious about climate resilience, shade and canopy cannot be an afterthought—they must be designed into our communities from the outset.

A few practical realities that should remain front of mind as this work moves forward:

First, planting trees is only the beginning. Long-term success depends on proper species selection, adequate soil volume, irrigation, and sustained maintenance. Without those, well-intentioned planting efforts can fail, and public confidence in these programs can erode.

Second, prioritizing lower canopy coverage communities is both a public health necessity and a matter of fairness.

1314 S. King Street #306 | Honolulu, Hawai'i 96814
T: 808-593-0300 | mail@outdoorcircle.org | www.outdoorcircle.org

Third, canopy goals—such as the City and County of Honolulu's 35 percent target—are important, but they must be paired with clear implementation pathways and accountability. Otherwise, they risk becoming aspirational rather than operational.

Finally, coordination between state and county agencies, as called for in this resolution, is essential. Urban forestry does not fall neatly within a single jurisdiction, and fragmented responsibility is one of the primary reasons progress has been uneven. This resolution appropriately recognizes that and begins to address it.

The Outdoor Circle has long championed trees as essential to the character, health, and livability of Hawai'i. S.R. 121 builds on that legacy and reflects a growing understanding that trees are also one of our most effective and immediate tools for climate adaptation.

This is a thoughtful, forward-looking measure that aligns with both longstanding values and present-day needs.

We respectfully urge the adoption of S.R. 121.

Mahalo for your consideration of our testimony,

Winston Welch
Executive Director

1314 S. King Street #306 | Honolulu, Hawai'i 96814
T: 808-593-0300 | mail@outdoorcircle.org | www.outdoorcircle.org

1314 S. King Street #306 | Honolulu, Hawai‘i 96814
T: 808-593-0300 | mail@outdoorcircle.org | www.outdoorcircle.org

SCR-129
Submitted on: 3/25/2026 12:00:47 PM
Testimony for AEN on 3/27/2026 3:05:00 PM

Submitted By	Organization	Testifier Position	Testify
Kialoa Mossman	Individual	Support	Remotely Via Zoom

Comments:

Chair and Members of the Agriculture and Environment Committee:

I would like to strongly support Senate Resolution 121 and Senate Concurrent Resolution 129, which affirm the importance of expanding tree canopy and shade in urban areas to address increasing heat across Hawai‘i.

As a member of the community member born and raised in Hawaii, as a native Hawaiian chant practitioner, and as an employee of the Department of Hawaiia Home Lanfs, I witness firsthand the increasing demand for community-driven tree planting, education, and stewardship initiatives. Trees are who we are as people and are positively correlated to self identity and environmental kinship.

I also see that much more remains to be done by state and county agencies to institutionalize, expand, and enhance tree canopy and tree care in urban spaces. I urge agencies to see and treat trees as living infrastructure, not just ‘beautification’. As with other types of infrastructure, sustained investment in appropriate maintenance is critical.

These efforts are increasingly important as urban heat intensifies. Many communities, particularly those with limited canopy, experience higher temperatures due to the prevalence of heat-absorbing surfaces such as roads and rooftops. Planting and expanding tree canopy is one of the most immediate and effective ways to provide shade, reduce heat exposure, minimize runoff and improve quality of life at the neighborhood scale.

At the same time, I recognizes that the benefits of trees extend well beyond heat mitigation. Trees and healthy soils support water absorption, reduce runoff, and help protect downstream coastal resources. In short, trees are long-term community assets that compound value year after year.

S.R. 121 and S.C.R. 129 reinforce the importance of coordinated, statewide action. These resolutions will help strengthen community-based programs, support partnerships between and among agencies, and expand access to the many benefits of urban trees.

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

Kialoa Mossman

SCR-129
Submitted on: 3/24/2026 2:01:54 PM
Testimony for AEN on 3/27/2026 3:05:00 PM

Submitted By	Organization	Testifier Position	Testify
Cathy Goeggel	Individual	Support	Written Testimony Only

Comments:

Trees are the guardians of the earth, spreading branches to cool the air and absorbing carbon dioxide. During the 55 years I have lived on O'ahu, I have seen fewer and fewer green spaces. There used to be a row of shade trees along the very bottom of the Pali hwy. Several were taken away to add another lane for commuting traffic. I miss those trees! Are we going to destroy much of what makes Hawai'i so special? I trust that you, as our lawmakers, will act to save current trees and plant more, many more! Mahalo.

Aloha Aloha Chair Gabbard, Vice Chair Richards, and Members of the Committee on Agriculture & Environment,

I'm writing in **support of SCR 129/SR 121**, which affirms support for expanding programs and projects that increase tree canopy coverage and install shade trees to mitigate the effects of urban heat islands across Hawai‘i.

Urban heat Is a growing public health risk, especially to lower-income families. Expanding tree canopy coverage is one of the most effective, nature-based solutions to reduce urban heat. Shade trees lower ambient and surface temperatures, reduce heat exposure, and provide additional co-benefits, including improved air quality, stormwater management, and mental well-being. These benefits directly contribute to healthier, more resilient communities.

SCR 129/SR 121 appropriately recognizes the need for collaboration across state and county agencies to assess heat vulnerability, identify priority areas, and integrate shade strategies into infrastructure, housing, and community planning. Building on existing programs such as Kaulunani and Shade Trees for Schools, this measure supports a coordinated and scalable approach to heat mitigation.

Mahalo for the opportunity to provide testimony in strong support of SCR 129/SR 121.

Mahalo nui,
Paul Bernstein
Honolulu