CALIFORNIA ReLEAF

June 15, 2018

Ms. Shelby Livingston
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Ms. Livingston,

Thank you for the continued work and effort you and the California Air Resources Board have committed to refining the 2030 Natural and Working Lands Climate Change Implementation Plan in partnership with Cal EPA, CDFA, and the Natural Resources Agency. We support the goal to more fully integrate natural resources into the overall GHG reduction and climate adaptation framework, and are hopeful that many tools available to the Board will be utilized to inform this process, including the recently finalized Forest Carbon Plan.

With regard to the Concept Paper presented to stakeholders in May, we must respectfully continue to raise concerns related to urban forestry and what appears to be an increasing marginalization of this critical resource in this framework.

The recommendations provided in this document will help guide California natural resources planning efforts and infrastructure investments needed to meet the ambitious 2030 GHG reduction targets set forth in Executive Order B-30-15 and SB 32. While it is important to recognize that the Executive Order proclaims "Natural infrastructure solutions should be prioritized," we must acknowledge that the primary source of carbon sequestration and carbon sinks will come from the State's rural and urban forests. Although California's urban forests occur on only 5% of the state's land area, they sequester two million metric tons of carbon per year, with another .4 million metric tons of carbon dioxide emissions avoided (attributed to modeled reductions in building energy use)[1]. Hence, their health and resilience is extremely important to meeting the state's GHG reduction targets.

Unfortunately, the single recommendation in the Concept Paper for urban forestry is limited to increasing urban tree canopy. While this activity is warranted and supported by the urban forestry and environmental justice community, the most pressing issue confronting California's urban forest is not addressed – maintaining the health and sustainability of our existing urban trees.

Eight months ago, we provided written comments on the 2nd Draft of the CALAND Model presented on October 13th in Sacramento that included the following recommendation:

[1] California Forest Carbon Plan; May 2018, page 110.

The few references to urban forests that are included in Version 2 intimate an exclusive focus on new tree canopy and biomass. Such an approach would marginalize the immense value and need for maintain the existing urban forest and the quantifiable GHG reductions that come with it. Impacts of alternative management strategies to address important threats to urban forests and carbon they store are not modeled. These include:

- *Different rates of mortality and canopy loss associated with invasive pests, drought, peri-urban development, and in-fill development*
- *Different rates of afforestation and canopy gain associated with various policies and associated levels of tree planting and stewardship activities*
- *Impacts of vibrant urban wood utilization on carbon dioxide beyond biomass*

This document should be aimed at not only maximizing the sequestration values of the urban forest, but also improving the quality of the existing urban forest. Consideration of age and species diversity, and tree health is critical, and how these components directly correlate to addressing the Urban Heat Island effect and avoided emissions that complement sequestration.

All of the issues and recommendations are still exceedingly pertinent, yet none of them are included in the Concept paper. This is in dramatic contrast to the actions taken by the Administration, Legislature and scientific community over the last eight months concerning the need for maintaining our existing urban forest. This includes:

- Release of the final Forest Carbon Plan by Cal EPA and CNRA that identifies as the State's top priority for urban forests *protecting the existing tree canopy through policies and programs targeting ongoing maintenance and utilization of industry best management practices*[2].
- Chaptering of Assembly Bill 1530 (Gonzalez-Fletcher), which includes new language within the California Urban Forestry Act that requires CalFIRE to *promote policies and incentives that advance improved maintenance of urban forest canopy to optimize multiple benefits*[3] and provides them with the authority for *funding improved urban forest maintenance, and projects that respond to events that impact urban forest health, including drought, storms, pest, and disease*[4].
- Allocation of $5 million from the general fund for *the purpose of curing or suppressing diseases associated with the spread of the Polyphagous and Kuroshio Shot Hole Borer invasive beetles. The Department of Food and Agriculture shall collaborate with the Department of Forestry and Fire Protection to ensure this funding includes efforts made in urban forest areas*[5].
- A published study on the structure, function and value of urban forests in California communities that explicitly includes *strategies to reduce the risk of catastrophic loss by increasing the resilience of California's urban forests*[6].

Both the publications and actions highlighted above reflect a very clear understanding and need to maintain and protect our existing urban forest. In fact, it is our understanding that the last of these aforementioned items has helped guide the CALAND modeling since its publication. Ironically, it is also the strongest and most comprehensive argument for maintaining our existing urban forest, not only from the economic and environmental perspectives, but also through scientifically sound risk assessments.

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[2] California Forest Carbon Plan; May 2018; page 42.
[3] Public Resources Code, Section 4799.08.
[4] Public Resources Code, Section 4799.12.
[5] Senate Bill 840 (Mitchell) – Budget Act of 2018 as amended June 10, 2018.
[6] E. Gregory McPherson, Qingfu Xiao, Natalie S. van Doorn, John de Goede, Jacquelyn Bjorkman, Allan Hollander, Ryan M. Boynton, James F. Quinn, James H. Thorne (2017). The structure, function and value of urban forests in California. *Urban Forestry and Urban Greening.*

RECOMMENDATION: Expand scope of urban forest actions to include Maintaining and Protecting Existing Urban Forest as a separate, additional activity.

California's existing urban forest contains 173.2 million trees[7] and store an estimated 28 MMT of C, including both above- and below-ground components[8]. The annual value of ecosystem services is estimated at $8.3 billion and the urban forests asset value is $181 billion[9]. And these mature trees are at great risk.

The Administration's own 2018 Forest Carbon Plan notes the following:

> *Urban forests in California, like wildland forests, are being impacted by climate change and drought. Elevated temperatures, reduced precipitation, and reduced landscape watering all contribute to mortality and health issues.*
>
> *Invasive pests and diseases continue to enter the state and cause damage to urban forests. The golden spotted oak borer, polyphagous shot hole borer, and Kuroshio shot hole borer are examples of such pests that are currently affecting urban forests. The two shot hole borer species are of particular concern as they have wide host species ranges. Sudden oak death is also a major disease problem in northern California urban forests.*

This is why the Administration and the Legislature are allocating precious General Fund dollars to CDFA and CalFIRE this year. Pests and disease are endangering our existing urban forest at an alarming rate, with thousands of mature trees and their carbon sink values being decimated annually (see Tijuana River "before and after" photos below).

These dramatic losses obliterate the urban forestry "baseline" as discussed at the stakeholder workshop held in Sacramento on May, 2018. The decreasing carbon sink value will take decades to replace if increased tree planting is the only urban forest activity recognized and adopted in the final 2030 Natural and Working Lands Climate Change Implementation Plan.

However, the Air Resources Board is in a very strong position to reverse this trend by adopting maintenance and protection of the existing urban forest as a distinct and separate activity from tree planting. Some policies that could be swiftly and immediately implemented to move California from a diminishing baseline to what could potentially become a BAU model include:

[7] McPherson, et. Al., 2017.
[8] Forest Carbon Plan. May, 2018. Page 110.
[9] McPherson, et. Al., 2017.

- Continued investments in combatting pests and diseases as seen in the 2018-19 State Budget.
- Adopt quantification methodologies for GHG emission reductions resulting from maintenance and protection of the existing urban forest in the California Climate Investments Program.
- Set in statute the California Invasive Species Council and Advisory Committee as proposed in the May 25th, 2018 version of AB 2470 (Grayson and Gonzalez Fletcher).
- Model the potential impacts of alternative management strategies to address important threats to urban forests as identified as the top of page two.
- Adopt strategies to reduce the risk of catastrophic urban forest loss as detailed in "The structure, function and value of urban forests in California communities."

Finally, we would agree with our rural forest counterparts at Pacific Forest Trust that CARB should facilitate transparent, rigorous, and timely review of CALAND; and consider complementary tools to the CALAND model.

Part of the challenge in offering robust comments on much of the material presented to date is the lack of substance on which to comment. As an example, the CNRA document dated September 22, 2017 that outlines CALAND Model Development and Next Steps highlights that Version 2 "incorporates new data and refined methods for the conservation, management, and restoration activities identified in Version 1." In the case of urban forestry (or Urban Area as delineated in the technical document), there are a few qualitative comments made in the 59-page report, but quantifiable data and/or targets are difficult to ascertain. In fact, there appears to be potentially more data and targets relating to urban forestry in Version 1 (i.e. management scenarios that include quantifiable urban tree canopy fraction targets for 2020 and 2030.)

Given the limited information available regarding what the final CALAND model will include, it makes sense to capture and record recommendations and modeling from other sources. In the case of Urban Forestry, California's 2018 Forest Carbon Plan offers modeling on urban heat island impacts, and how urban forests can be utilized to address UHI. It also offers a wealth of management actions that could strongly inform the existing activity of increasing the urban tree canopy and the recommended additional activity of maintaining and protecting the existing urban forest. Therefore, we want to emphasize the recommendation from PFT that the CALAND model results are contextualized with results from other sources and presented as a table that outlines each action and its carbon gains.

As the Administration noted more than two years ago, the 2030 GHG reduction targets established under the Executive Order (and codified in SB 32) are "the most aggressive benchmark enacted by any government in North America to reduce dangerous carbon emissions over the next decade and a half." The 2030 Natural and Working Lands Climate Change Implementation Plan will be the pivotal piece of that roadmap to success for maximizing the GHG reduction values of our rural and urban forests. Consequently, the inclusion of maintaining and protecting our existing urban forest, as a separate and distinct activity from tree planting, is required if the state is going to accurately and successfully maximize the value of our urban forest in the NWL equation.

Thank you for the opportunity to provide written comments and for your efforts in reflecting the vital role urban forestry plays in meeting California's GHG reduction goals.

Sincerely,

Chuck Mills
Director, Public Policy and Grants