JOINT LEGISLATIVE COMMITTEE ON CLIMATE CHANGE POLICIES

ASSEMBLYMEMBER EDUARDO GARCIA, CHAIR
SENATOR HENRY STERN, VICE CHAIR

INFORMATIONAL HEARING:

URBAN GREENING AND URBAN FORESTRY PROGRAMS
FEBRUARY 15, 2018
1:00PM
STATE CAPITOL ROOM 126

BACKGROUND ON THE URBAN GREENING PROGRAM

The California Natural Resources Agency (CNRA) has historically administered multiple programs related to urban greening, including the California River Parkways Program, the Environmental Enhancement and Mitigation Program, and the Proposition 84 Urban Greening Program under the Strategic Growth Council. Continuing the goals of those previous programs, SB 859 (Chapter 368, Statutes of 2016) established the Urban Greening Program under CNRA to use funding from the Greenhouse Gas Reduction Fund to support the development of green infrastructure projects that reduce greenhouse gas emissions and provide multiple other community and climate benefits.

Consistent with the direction of AB 32, the Urban Greening Program funds projects that increase or enhance green spaces that sequester carbon, strategically plant trees to reduce building energy use, reduce vehicle miles traveled by establishing or enhancing access to parks and open spaces, improve air and water quality through natural interventions, and/or facilitate active transportation through trail development or improvement. Eligible applicants are cities, counties, special districts and nonprofit organizations. Priority is given to applicants that provide benefits or outreach to underserved or disadvantaged communities, leverage interagency partnerships, or utilize existing public lands or resources.

The first round of funding to allocate $76 million from the 2016/2017 budget received 143 applications; CNRA awarded funding to 39 projects, 92 percent of which were located in disadvantaged communities defined by SB 535 and CalEnviroScreen. The second round of funding to allocate $26 million from the 2017/2018 budget is currently open for applications and will be awarded in fall 2018; CNRA plans to target 60 percent of that funding in disadvantaged communities defined by CalEnviroScreen, 10 percent to projects in low-income communities defined by AB 1550, 5 percent to projects in low-income communities that are also within one half of a mile of a disadvantaged community, and a maximum of 25 percent of funding to projects that are in neither a low-income or disadvantaged community.

BACKGROUND ON THE URBAN FORESTRY PROGRAM

The Cal Fire Urban & Community Forestry Program funds tree planting projects that also increase water supply, clean air and water, reduce energy use, assist with flood and stormwater management, provide community recreation and revitalization opportunities, and improve public health. This grant program is a component of Cal Fire's Urban & Community Forestry Program Strategic Plan[1], which aligns Cal Fire's programs with the goals of the USDA Forest Service and the California Urban Forestry Act of 1978.

[1] California Department of Forestry and Fire Protection, "California Urban Forestry Advisory Committee: CAL FIRE Urban & Community Forestry Program Strategic Plan, 2013-2018, http://www.fire.ca.gov/resource_mgt/downloads/CA_UrbanForestPlan_20140109)_FINAL.pdf

Cal Fire has been awarding Urban & Community Forestry Program grants since 2015, funding more than 64 projects what will result in the planting of more than 72,000 trees. Grant applications are currently being accepted for 2018. Eligible applicants are cities, counties, qualifying districts, and nonprofit organizations. Cal Fire plans to target 75 percent of their available funding to disadvantaged and/or low-income communities as defined by AB 1550.

Related to the investments from the Greenhouse Gas Reduction Fund, the California Air Resources Board created a Compliance Offset Protocol for Urban Forest Projects in 2011[2]. The protocol provides methods to quantify and report the removal of greenhouse gas emissions from the atmosphere as a result of tree planting and maintenance activities that permanently increase carbon storage in trees anywhere in the country, without any current limitations that projects directly benefit communities in California. Once verified, these projects generate credits that can be used for compliance with California's Cap-and-Trade Program. As of February 8, 2018, the California Air Resources Board had issued no offset credits for Urban Forest Projects[3]. AB 398 directed the California Air Resources Board to convene a Compliance Offset Protocol Taskforce to provide guidance for new offset protocols that would increase offset projects that provide direct environmental benefits to the state.

EMISSIONS REDUCTION AND OTHER CO-BENEFITS

The United States Environmental Protection Agency[4] (EPA) has identified several ways that green infrastructure projects help communities manage the impacts of climate change. Among other things, green infrastructure projects – the definition for which includes the activities funded by the Urban Greening Program and the Urban & Community Forestry Program – increases rainfall capture in urban areas. By helping to capture rainwater green infrastructure projects help reduce greenhouse gas emissions by decreasing flood risk, reducing the burden on stormwater and sewage systems, improving water quality, and replenishing groundwater supplies. In one case study based in Los Angeles[5], the EPA found that green infrastructure projects could help capture, treat, and store stormwater along transportation corridors, helping the City reach their water sustainability goals.

EPA also found that green infrastructure can significantly reduce urban heat island effect[6]. A 2017 report used canopy data to calculate the savings from heating and cooling atrributed to urban trees in California, reaching conclusions that those savings equal approximately $568.7 million annually[7]. That report also calculated avoided carbon emissions from building energy savings as approximately 1.3 MMTCO2 per year, with an additional 8.5 MMTCO2 removed from the atmosphere each year. In additon to those economic and climate benfits, the report concluded that city trees in California should be credited with removing 3,537 tones of air pollution each year. According to the authors, "When the state's urban trees were considered as a capital investment similar to other infrastructure, their asset value was $181 billion… or $1045 per tree"[8].

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[2] California Air Resources Board, "Compliance Offset Protocol Urban Forest Projects," https://www.arb.ca.gov/cc/capandtrade/protocols/urbanforest/urbanforest.htm
[3] California Air Resources Board, "Compliance Offset Program," https://www.arb.ca.gov/cc/capandtrade/offsets/offsets.htm.
[4] United States Environmental Protection Agency, "Green Infrastructure for Green Resiliency," available at https://www.epa.gov/green-infrastructure/green-infrastructure-climate-resiliency
[5] United States Environmental Protection Agency, "Green Infrastructure and Climate Change: Collaborating to Improve Community Resiliency," August 2016.
[6] United States Environmental Protection Agency, "Green Infrastructure for Green Resiliency," available at https://www.epa.gov/green-infrastructure/green-infrastructure-climate-resiliency
[7] E. Gregory McPherson et al, "The structure, function and value of urban forests in California communities," 2017.
[8] Ibid.

Research attributes green infrastructure with improved public health outcomes. The *American Journal of Preventative Medicine*[9] published a group of studies that found enhanced access to locations for physical activity in combination with informational outreach increased the frequency of physical activity by 48.4 percent, which was further explored by the RAND Corporation that found that people who live close to parks participate in more physical activity than people who live far away[10]. A United States Surgeon General report found that regular exercise reduces the risk of premature death, coronary heart disease, hypertension, colon cancer, and non-insulin-dependent diabetes[11]. In addition to fostering healthier weight, the Surgeon General also concluded that physical activity improves muscles, joints, body fat distribution, and the cardiovascular, respiratory, and endocrine systems.

A study published in 2017 found that California's urban tree canopy covers 15 percent of the total urban area in the state[12]. The authors further concluded that only 42 percent of all potential tree sites had trees planted, leaving a lot of opportunity for additional trees and related benefits. While that leaves a lot of room for potential additional trees and related benefits, studies are increasingly highlighting the need to protect the trees already planted. Global warming is putting trees at risk, particularly in urban areas where trees can also be displaced by development[13]. Scientists warn of increased risk of pests that are harmful to trees as climate change progresses. A recent study conducted a robust survey of urban trees, and concluded that the spread of the Invasive Shot Hole Borer-Fusarium Disease complex (ISHB-FD) could jeopordize approximately 23.2 million trees in southern California, which could result in a significant cost – both in lost value of potential ecoservices and in cost for removing and replacing the trees[14].

DISCUSSION QUESTIONS

This hearing gives committee members a chance to understand the previous investments and current status of the Urban Greening and Urban Forestry Programs funded by the Greenhouse Gas Reduction Fund in previous budget cycles. Panelists will discuss previously funded projects, their plans for the funding allocated in 2017, and how these programs intersect with California's climate goals.

Potential questions for panelists:

- What characteristics distinguish urban greening projects from urban forestry projects?
- How many applications have been received for this funding? What parts of the state have received funding, and what parts of the state are still looking for additional resources?
- What is the collective projected impact of projects funded under these programs, both on emissions and on other co-benefits?
- What role do urban greening and urban forestry projects have in helping California communities adapt to the impacts of climate change?
- How is the State monitoring the health of our current urban trees and green spaces? What interventions could help ensure the long-term resiliency of that infrastructure as global warming progresses?

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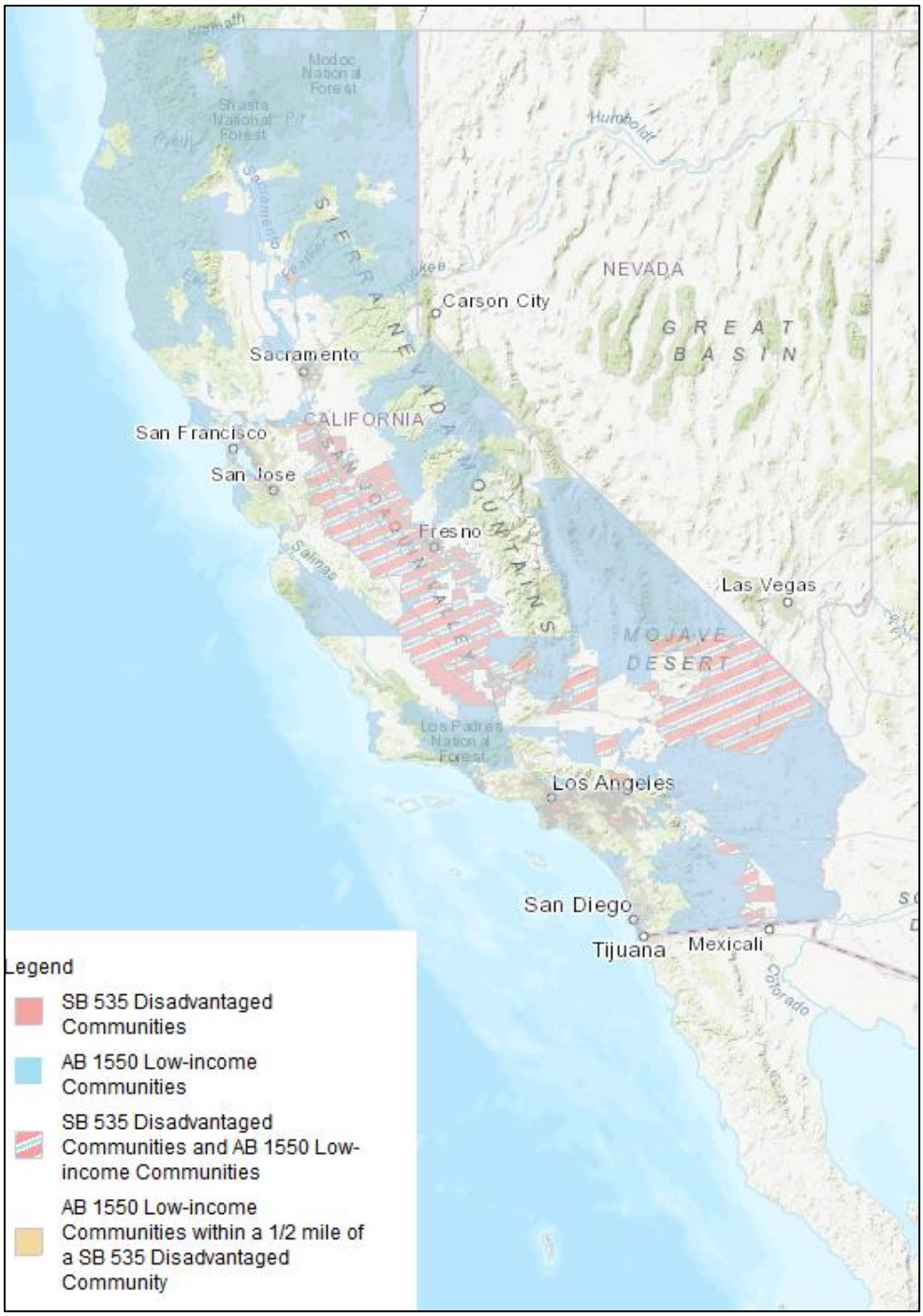
[9] Emily B. Kahn et al. and the Task Force on Community Preventive Services, "The Effectiveness of Interventions to Increase Physical Activity," 2002.
[10] Deborah Cohen et al., "Proximity of Parks and Schools Is Associated with Physical Activity in Adolescent Girls," 2005; Elva Yañez and Wendy Muzzy, "Healthy Parks and Healthy Communities: Addressing Health Disparities and Park Inequities through Public Financing of Parks, Playgrounds, and Other Physical Activity Settings," 2005.
[11] U.S. Department of Health and Human Services, "Physical Activity and Health: A Report of the Surgeon General," http://www.cdc.gov/nccdphp/sgr/pdf/sgrfull.pdf
[12] Ibid.
[13] The Trust for Public Land, "The benefits of green infrastructure for heat mitigation and emissions reductions in cities: A review of the literature," 2016.
[14] E. Gregory McPherson et al, "The structure, function and value of urban forests in California communities," 2017.

Appendix A: Map of Communities Targeted for Investments[15]

SB 535 (Chapter 830, Statues of 2012) directed agencies to make investments that benefit California's disadvantaged communities as defined by CalEnviroScreen. AB 1550 (Chapter 369, Statutes of 2016) added a focus on investments in low-income communities and households. State agencies will begin using the AB 1550 map below to target climate investments in 2018. In most cases, only a percentage of available funding will be directed using this map.



[15] Map obtained from California Air Resources Board, "Disadvantaged and Low-income Communities Investments, https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm