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April 28, 2014

California Air Resources Board
1001 "I" Street
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**Subject:** Include Urban Agriculture in the AB32 Scoping Plan Update

**Re:** Public Comment on AB32 Scoping Plan Update

**Summary**: The Scoping Plan Update for AB32 has taken important steps in recognizing the importance of agriculture and working lands for carbon mitigation and other co-benefits. **The plan could be further improved by including urban agriculture.** The following comment is broken into three sections, as follows:

1. Including urban agriculture could for reductions in greenhouse gas emissions from localizing food production, as a carbon sink, and as a bioremediator for other short-lived climate pollutants, along with other co-benefits for public health and city planning.
2. Including urban agriculture in the scoping plan could incorporate policy initiatives the state has already passed.
3. CARB should consider actions for legalizing and incentivizing urban agriculture, funding urban agriculture in environmental justice communities, and consider penalties for the conversion of urban agricultural land into development projects as a part of climate mitigation and co-benefit strategies.

**1) Including urban agriculture in the scoping plan would contribute to reductions from GHG and short-lived climate pollutants, and incorporate more public health and city planning co-benefits such as land conservation and environmental justice, all of which are described in other sections of the scoping plan:**

Greenhouse gas reductions

The scoping plan outlines the **GHG reduction impacts of agricultural land**, such as the research showing that “agriculture can also be a carbon sink, where carbon is stored (sequestered) in both crops and soil” (pg 65). However, the scoping plan could be improved by looking at the potential for GHG reductions from urban agriculture projects. The scoping plan should evaluate the direct GHG carbon sequestration from urban agriculture projects since trees, vegetation, and un-paved soil all have carbon sink properties[[1]](#endnote-1). The scoping plan should also evaluate the indirect impacts from incorporating urban agriculture with green zone[[2]](#endnote-2) and smart growth city planning strategies to reduce energy consumption. Finally, the scoping plan should evaluate the GHG gas emissions reductions from localized food systems, including sustainable production, cooling and refrigeration, food waste minimization[[3]](#endnote-3) and reduced transportation from agricultural delivery systems.

* + ***Policy suggestions***: Legalize and incentivize urban agriculture[[4]](#endnote-4)
	+ Allow urban agriculture projects to claim credits for moving us towards our climate goal.

Short-lived climate pollutant reductions

One of the most important new components to the scoping plan is the attention to **mitigation of short-lived climate pollutants**. The ARB recognizes that reducing these chemicals can have a faster impact on climate change, and will also have many co-benefits in terms of public health. The scoping plan acknowledges how urban forestry can have an impact on both GHG reduction and remediation of air quality. Vegetation from urban agriculture acts as a passive filter effect on short-lived climate pollutants[[5]](#endnote-5) and reduces the production of these compounds from reduction of diesel delivery systems.

* + ***Policy suggestion***: Fund and support research into the carbon sequestration and short-lived climate pollutant remediation effects of urban agriculture, and methods that enhance these functions.

Co-Benefits for public health and city planning

The AB32 Scoping Plan Update includes more extensive consideration of the **co-benefits** of GHG reduction strategies. For instance, it explains that “efforts to reduce GHG emissions and enhance carbon sequestration on natural and working lands also have significant economic, social, and environmental co-benefits” (pg 78). There are many **public health benefits** to urban agriculture, particularly for nutrition and food security, but also for environmental remediation[[6]](#endnote-6). Additionally, there are many **city planning co-benefits**, including organic waste management, biodiversity, microclimate control (combats heat island effect), urban greening, economic revitalization[[7]](#endnote-7), strengthens communities and social capital, cultural heritage, and education.[[8]](#endnote-8)

* + ***Policy suggestion***: Fund and support place-based public health and city planning initiatives into the co-benefits of urban agriculture for transportation, energy use, water use, air quality, nutrition, and health.

Conservation of Agricultural Land

The current scoping plan focuses on the **necessity for the conservation** of agricultural lands and forests. It states that “local and regional land use planning actions and policies need to more fully integrate and emphasize land conservation and avoided conversion of croplands, forests, rangelands, and wetlands—as well as expansion and promotion of urban forestry and green infrastructure” (pg 78), and that “this could be accomplished by using incentives for conservation easements, supporting urban growth boundaries, and maintaining agricultural zoning” (pg 65). Urban agriculture faces the same problem of economic pressures to convert the land to development, and similar strategies such as easements could be effective in the conservation of these urban open spaces[[9]](#endnote-9).

* + ***Policy Suggestion***: Penalize and otherwise creating disincentives for cities converting urban agricultural land into development.
	+ Streamline processes and public investments in easements for urban agricultural land to promote conservation.

Environmental Justice

The scoping plan update also considers **Environmental Justice** impacts. For instance, the plan examines how “urban forests can significantly reduce the disproportionate environmental impacts on California’s environmental justice communities through increased green infrastructure investments that reduce GHG emissions,” and that further social benefits such as “experience, training, and opportunity for at-risk youth” could also be achieved by partnering with local groups in implementing urban forestry projects. The same logic can be applied to policies prioritizing urban agriculture, which provides many co-benefits to food desert and food insecure communities, including integral environmental justice goals such as community empowerment.[[10]](#endnote-10)

* + ***Policy suggestion***: Invest in environmental justice communities, including particular attention to supporting community-based urban agriculture projects.
	+ Incentivize and reward cities that create urban agriculture initiatives for identifying useable land and passing policy that assists young and beginning urban farmers.

**2) Considering urban agriculture policies in the AB32 Scoping Plan Update would dovetail with other path-breaking California policies for urban agriculture and environmental justice:**

The Urban Agriculture Incentive Zone Act (AB 551)
AB 551 is a state assembly bill introduced by Assemblymember Phil Ting (CA-D-19) and signed by Governor Brown in 2013. AB 551 gives cities and counties the opportunity to pass local ordinances to create “incentive zones” for urban agriculture. Within these zones, private landowners who commit their land for urban agriculture for 10 years will be able to sign contracts with the city or county to give them a lower property tax rate. Urban farmers will have more rate stability because the land value is assessed only for agricultural use and does not compete with the land’s value for residential or commercial use.[[11]](#endnote-11)

* + ***Policy Suggestion***: The scoping plan should build upon this important policy, and encourage cities to create these incentive zones. The scoping plan should also focus on implementing different policy solutions that not only incentivize this kind of land use, but which also regulates or creates disincentives for the conversion of urban agricultural land to development, since this is a powerful force in cities with limited open space.

The Greenhouse Gas Reduction Fund (SB 535)

SB 535 is a state senate bill introduced by Senator Kevin De León and signed by Governor Brown in 2012. SB535 follows up on The Global Warming Solutions Act of 2006 (AB32) by making provisions for disbursing funds from the cap and trade program. Under SB535, CalEPA must identify disadvantaged communities and then the ARB must follow-up with an investment plan to ensure that at least 25% of auction revenues are set aside for investments in “projects that provide benefits to [these disadvantaged] communities,” with at least 10% in projects “located within” these communities.[[12]](#endnote-12)

* + The scoping plan update could expand upon this act with further policy that focuses on high priority needs to ensure that projects receiving investment achieve both GHG-reductions as well as significant direct and immediate benefits to these disadvantaged communities. Benefits such as economic opportunities, social capital, education, pollution control, and food security, are all integral aspects of urban agricultural programs that also have GHG reduction impacts.

**3) Following up on the precedent set by these progressive policies, the AB32 Scoping Plan Update should prioritize policies that consider urban agriculture in GHG reduction, such as those that:**

* + Legalize and incentivize urban agriculture[[13]](#endnote-13)
	+ Allow urban agriculture projects to claim credits for moving us towards our climate goal.
	+ Fund and support research into the carbon sequestration and short-lived climate pollutant remediation effects of urban agriculture, and methods that enhance these functions.
	+ Fund and support place-based public health and city planning initiatives into the co-benefits of urban agriculture for transportation, energy use, water use, air quality, nutrition, and health.
	+ Penalize and otherwise creating disincentives for cities converting urban agricultural land into development.
	+ Streamline processes and public investments in easements for urban agricultural land to promote conservation.
	+ Invest in environmental justice communities, including particular attention to supporting community-based urban agriculture projects.
	+ Incentivize and reward cities that create urban agriculture initiatives for identifying useable land and passing policy that assists young and beginning urban farmers.

Overall, considering these progressive policy approaches to urban agriculture would support the goals in the AB32 Scoping Plan Update for reductions in GHG and short-lived climate pollutants, and other public health and city planning co-benefits including land conservation and environmental justice.

**Considering urban agriculture would be a strong addition to the scoping plan, and would keep California at the helm of this thriving international movement.**

**References**

1. Kulak, M., et al. (2013). "Reducing greenhouse gas emissions with urban agriculture: a life cycle assessment perspective." Landscape and urban planning **111**: 68-78. [↑](#endnote-ref-1)
2. Zhang, B., et al. (2014). "The cooling effect of urban green spaces as a contribution to energy-saving and emission-reduction: A case study in Beijing, China." Building and Environment **76**: 37-43. [↑](#endnote-ref-2)
3. MacRae, R., et al. (2013). "The Food System and Climate Change: An Exploration of Emerging Strategies to Reduce GHG Emissions in Canada." Agroecology and Sustainable Food Systems **37**(8): 933-963. [↑](#endnote-ref-3)
4. Schindler, S. B. (2012). "Of Backyard Chickens and Front Yard Gardens: The Conflict Between Local Governments and Locavores." Tul. L. Rev. **87**: 231. [↑](#endnote-ref-4)
5. Speak, A., et al. (2012). "Urban particulate pollution reduction by four species of green roof vegetation in a UK city." Atmospheric Environment **61**: 283-293. [↑](#endnote-ref-5)
6. Public health Brown, K. H. and A. L. Jameton (2000). "Public health implications of urban agriculture." Journal of public health policy **21**(1): 20-39. [↑](#endnote-ref-6)
7. Rose, N. and K. Larsen (2013) "Economic Benefits of ‘Creative Food Economies’: Evidence, Case Studies and Actions for Southern Melbourne." Victorian Eco Inovation Lab. Accessed online 4/12/2014. < http://www.ecoinnovationlab.com/wp-content/attachments/Creative-Food-Economies-1-Economic-Benefits-and-Case-Studies.pdf> [↑](#endnote-ref-7)
8. Lovell, S. T. (2010). "Multifunctional urban agriculture for sustainable land use planning in the United States." Sustainability **2**(8): 2499-2522. [↑](#endnote-ref-8)
9. Campbell, M. C. and D. A. Salus (2003). "Community and conservation land trusts as unlikely partners? The case of Troy Gardens, Madison, Wisconsin." Land Use Policy **20**(2): 169-180. [↑](#endnote-ref-9)
10. McClintock, N. (2008). "From industrial garden to food desert: Unearthing the root structure of urban agriculture in Oakland, California." [↑](#endnote-ref-10)
11. Urban Agriculture Incentive Zone Act. AB551 (2013-2014). Accessed online 04/12/2014. <<http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB551>> [↑](#endnote-ref-11)
12. California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund. SB535 (2012). Accessed online 04/12/2014. <<http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB535>> [↑](#endnote-ref-12)
13. Schindler, S. B. (2012). "Of Backyard Chickens and Front Yard Gardens: The Conflict Between Local Governments and Locavores." Tul. L. Rev. **87**: 231. [↑](#endnote-ref-13)