Urban Forest Projects

What is this measure?

This measure would support the planting and maintenance of trees in urban areas; the growth of the trees would sequester carbon.

Why would someone do this as mitigation?

Trees take in carbon from the atmosphere as they grow, and more and more carbon is sequestered in the plant tissue as trees grows and mature. Adding more trees to the urban landscape provides a carbon sequestration benefit; more carbon is stored in the plant tissue instead of being present in the atmosphere, for the duration that the plant is alive.

The California Air Resources Board has an approved Compliance Offset Protocol for urban forest projects[1] that was designed specifically to generate offsets for the state's Cap-and-Trade program. Tree planting efforts done outside of the CARB protocol can yield additional GHG reductions that further the state's climate goals and benefit local communities. The concept of local urban forest projects is discussed in the most recent proposed revision to the state's Climate Change Scoping Plan[2] as a way to mitigate GHG emissions locally and also achieve community co-benefits.

There many co-benefits, include shade, improved quality of life for the community, recreational opportunities, noise abatement, blocking/collection of particulate matter in the air, and other "ecosystem services" such as reduced stormwater runoff, improved water quality, and soil stabilization.

How would you implement this measure?

Implementing Agency

An urban forest project or program could be implemented by a local city or the county, and could be used to enhance public spaces including parks, community gathering venues, or other institutional facilities. Local agencies with available land and resources should be targeted for this type of project. Importantly, for such a program to be successful, the trees will require adequate placement and proper care and maintenance.

Enforceability

If this measure is used as CEQA mitigation, it will be very important to condition the project to provide a mitigation monitoring and reporting plan, including adequate funding for long-term care and watering. The plan should also identify how trees will be replaced if some of the initial plantings do not survive.

Interaction with Existing Programs

Examples of existing programs to encourage urban forestation include:

- The California Urban Forestry Act of 1978[3] establishes that trees are a vital resource to the urban environment, and includes a variety of initiatives to encourage the growth and nurturing of trees in the urban landscape.

---

[1] www.arb.ca.gov/regact/2010/capandtrade10/copurbanforestfin.pdf
[2] www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf, page 136.
[3] Urban Forestry Act: http://www.fire.ca.gov/resource_mgt/downloads/UrbanForestry_ACT_2010.pdf

- California ReLeaf is a nonprofit organization that was founded in 1989 to preserve, protect, and enhance California's urban and community forests.[4]
- The California Urban Forests Council [5] is a nonprofit coalition with a mission to expand sustainable urban and community forests to improve the quality of life for all Californians.
- The City of Santa Barbara adopted a Climate Action Plan in 2012 and an Urban Forest Management Plan [6] in 2014; the forest plan includes a goal of planting 1,000 new trees by 2030 to increase carbon sequestration.

How would you quantify the benefits?

The CARB compliance offset protocol, mentioned previously, can act as a model for quantifying the GHG benefits of urban forest projects. There are a large number of assumptions that must be built into a model to predict the outcome of forest projects – including the amount and type of trees, local conditions, and maintenance and care practices.

Questions for Discussion

- Would any local organizations be willing to operate this measure and commit to ongoing monitoring and care for trees that are planted under it?
- What are good locations for projects under this measure?
- What level of funding would be necessary to make it successful?
- Can a monitoring and reporting methodology be implemented in a streamlined and cost-effective way?

Input Received

Comments Made at Workshops

Opportunities:

- Reduces urban heat island effect.
- Can improve aesthetics in local cities.
- Visible local mitigation where people live.

Challenges:

- Cost of planting and maintaining trees.
- Cost of monitoring and reporting GHG benefits.
- Questions about whether local agencies would take on the obligation to plant and maintain the trees.
- The water needed to keep the trees alive.
- Small amount of GHG reductions per tree mean it would take a very large program to generate substantial GHG reductions.

---

[4] California Releaf: http://californiareleaf.org/
[5] California Urban Forest Council: https://caufc.org/
[6] www.santabarbaraca.gov/civicax/filebank/blobdload.aspx?blobid=42332