

April 25, 2014

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Dear Members of the Urban Forest Workgroup,

I am writing to offer comments regarding the proposed revisions to The Reserve's Urban Forest Project Protocol. I very much appreciate the opportunity to help inform the innovative work The Reserve undertakes in enabling incentives for reducing greenhouse gas emissions, particularly in the land use and forest sectors. In general, I am excited that the Reserve has revisited this Protocol with the goal of making it more accessible, and applaud your efforts in this regard.

Having worked for several years at the front lines of forest carbon markets, I have witnessed numerous examples of conscientious individuals and public and private organizations that aspire to access carbon market incentives to further their work, but for whom the hurdles of unnecessarily detailed and restrictive technical specifications and the scale necessary for carbon projects to be economically viable have effectively precluded their participation.

I will offer some brief context for my own perspectives and the local context for the City of Portland, Oregon, and provide three more detailed comments on specific areas where the current draft of the Protocol could be improved to further the goal of increasing accessibility further below.

**My Context and the City of Portland:**

I have worked for several years in a variety of non-profit organizations with a common theme of trying to facilitate the accessibility of carbon incentives to forest projects. As Forestry Program Manager at Ecotrust, I have seen first-hand the challenges faced on the project development side for small public and private landowners whom desire to access carbon markets. Earlier, as a Senior Portfolio Associate at The Climate Trust, I worked as a carbon buyer trying to facilitate early-stage carbon projects with critical financing and purchase agreements.

In general, carbon market standards have unfortunately followed a trend of highly elaborate and expensive quantification, monitoring, and auditing procedures that have rendered the overwhelming majority of public and private forest owners and managers across the country unable to access this promising source of funding for carbon reductions.

Earlier this month (conveniently Arbor Month), I was appointed to Portland's Urban Forestry Commission, and now serve as an advisor along with 10 other volunteers to the Director of Portland Parks & Recreation and the City Forester. The City of Portland has shown innovation in monetizing benefits for ecosystem services provided by the urban forest through programs such as the City's

Bureau of Environmental Services' [Treebate program](#), which offers discounts on homeowner's water bills in exchange for the planting of new trees on their property.

The City of Portland is also now at a critical juncture in ensuring ongoing financing and programs to support the provision of ecosystem services from our urban forest. Implementation of a new Tree Code approved by City Council two years ago streamlining the existing urban tree regulations and improving urban forest protections has been delayed twice due to concerns over the ability to fund it.

In addition, the City's current programs to reward ecosystem service benefits provided by the urban forest are being repeatedly challenged in local media and politics. For example, a recent article from the Editorial Board of the Oregonian, our state's largest newspaper:

*The [Treebate] program, created in 2009, rationalizes the use of utility funds by asserting that trees reduce stormwater runoff by capturing rainfall.... You can stretch logic only so far before ratepayers get very nervous. If you can rationalize the use of sewer and stormwater money to buy parkland and pay homeowners to plant trees, what can't you rationalize?* [The Oregonian \(Sept. 20, 2013\)](#)

Stemming largely from debates over the City's progressive policies to protect the environmental services provided by our forest, the City of Portland is now facing a May 2014 ballot measure<sup>1</sup> that would replace the City Council's oversight of water utilities with an independently elected board. Bob Sallinger, Conservation Director for the Audubon Society of Portland, has warned this would "be a 'Trojan Horse' that would eliminate environmental programs funded with sewer and stormwater money."<sup>2</sup>

These issues highlight the fact that although Portland has a well-earned reputation for investing in green infrastructure and programs, these are hard-fought battles and it is in no way a foregone conclusion that the City will be able to maintain or expand our historical investments in our urban forest into the future.

### **Specific comments regarding the Urban Forest Project Protocol:**

#### **1. *Provide greater flexibility in sampling design and quantification of carbon stocks for Urban Forest Management projects.***

As currently written, the Protocol's sampling methodology for Urban Forest Management projects is very detailed, prescriptive, and limiting in terms of sampling design. The sampling grid and plot design is one reasonable approach for sampling larger contiguous forest areas, but is ill-suited for a large proportion of our urban forest that does not occur in large contiguous blocks.

For example, many greenspaces containing street trees and trees alongside business and residences on private property are not large enough to support the 1/10<sup>th</sup> acre (~75-foot-wide) circular sampling plot required for measurement of all trees within an Urban Forest Management project.

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<sup>1</sup> Ballot Measure 26-156: "Amends Charter: Creates water and sewer district with elected board." Ballot Measure text available at <http://www.portlandonline.com/auditor/index.cfm?c=59270&a=486673>.

<sup>2</sup> "Group announces ballot initiative to restructure Portland utilities: Portland City Hall Roundup," The Oregonian (July 18, 2013). Available at [http://www.oregonlive.com/portland/index.ssf/2013/07/group\\_announces\\_ballot\\_initiat.html](http://www.oregonlive.com/portland/index.ssf/2013/07/group_announces_ballot_initiat.html).

The requirement to set up 75-foot-wide sampling plots to measure tree carbon storage in 4-to-6-foot-wide planting strips for street trees is a clear example of where greater flexibility is needed in this Protocol. At the very least, I would encourage The Reserve to accommodate 100% tree sampling for those locations within an Urban Forest Management project area where it would be a more reasonable sampling strategy than 1/10<sup>th</sup> acre plots.

In general, I would even more strongly encourage The Reserve to adopt even more generalized guidance for sampling and quantification. A great example of a more flexible approach for relating ground-based carbon stock measurements in a systematic and quantifiable way to remotely-sensed data can be found in the “Tool for Remote Sensing Biomass Measurement” developed by Terra Global Capital and now open for public comment under the Verified Carbon Standard.<sup>3</sup>

Several cities, including Portland, have already designed monitoring protocols for tracking changes in Urban Forest Canopy, and I would encourage The Reserve to base any needed sampling prescriptions from a review of sampling protocols that many cities already have in place.<sup>4</sup>

I do not feel The Reserve must go to the extent of detailed specification of measurement of trees and sampling plot design shown in the current Protocol. I suspect that there are likely several other specifications in these designs, though intended to provide clarity and consistency for projects, are likely to unnecessarily preclude equally valid sampling protocols that a qualified third-party verifier should be able to recognize and certify with their own professional judgment.

**2. *The baseline projection for Urban Forest Management projects embeds a faulty assumption that historical growth in canopy cover can be continued under historical levels of effort and can be assumed linear and constant for the next 20 years.***

The current baseline approach taken in the Urban Forest Project Protocol to project forward canopy cover change in a linear fashion based on the past 10-20 years of change relies on a faulty assumption that the effort and funding required to increase urban canopy cover is linear.

In the case of Portland, the latest available analysis from Portland Parks & Recreation<sup>5</sup> found an increase in urban canopy cover from 2000-2010 of 2.6% (0.7% from 2000-2005, and 1.9% from 2005-2010)<sup>6</sup>; this growth required significant investments by the City to achieve.

Under the current proposed rules for Urban Forest Management projects, the City of Portland would be expected to compete against a baseline of 32.5% canopy coverage by 2020, and **35.1% by 2030**. Portland’s ambitious 2009 Climate Action Plan<sup>7</sup> set a city-wide canopy cover goal of **33.3% by 2030**. For

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<sup>3</sup> Available at <http://www.v-c-s.org/methodologies/tool-remote-sensing-biomass-measurement>.

<sup>4</sup> Portland’s own Canopy Monitoring Protocol can be found in Appendix A of Portland Parks & Recreation (2012) “Tree Canopy Monitoring: Protocol and Monitoring from 2000-2010.” Available at <https://www.portlandoregon.gov/parks/article/403426#page=19>.

<sup>5</sup> Portland Parks & Recreation. (July 2012) “Tree Canopy Monitoring: Protocol and Monitoring from 2000-2010.” Available at [www.portlandoregon.gov/parks/article/403426](http://www.portlandoregon.gov/parks/article/403426).

<sup>6</sup> According to this report, Portland’s 27.3% (± 2.4%) canopy cover in 2000 increased to 29.9% (± 2.5%) by 2010.

<sup>7</sup> Available at <http://www.portlandoregon.gov/bps/49989>.

Portland to achieve this canopy cover target, substantial new investments are needed (in addition to ongoing challenges to fund the maintenance and health of the existing urban forest), and yet the City would still fall well short of the baseline calculated under the current version of the Protocol.

The policy incentives and programs the City of Portland has been leveraging to achieve these gains in canopy cover are under serious threat (as mentioned above) due to both budgetary constraints as well political challenges to the basic premise that the City should be using utility fees to reward landowners for additional ecosystem service benefits provided to the City by their newly planted trees.

In reality, the ability for a city like Portland to increase canopy cover is not a linear function, but rather asymptotic. There are hard limitations to the maximum area where cities can plant and maintain trees, and for cities like Portland that are striving to get as close to that maximum value as possible, a baseline projected forward linearly for 20 years is wildly unrealistic, and would effectively preclude Portland and cities like us from accessing carbon finance to achieve the additional tree planting and maintenance required even to hit our existing canopy cover goals.

**3. *Replace the historical baseline projection for Urban Forest Management projects with a Performance Standard comparable to the approach taken in the Urban Tree Planting project type.***

Remote sensing analysis of 20 major cities across the U.S. shows these urban forests are losing canopy coverage at an average rate of 1.29% per year.<sup>8</sup> I encourage The Reserve to consider a performance standard approach for Urban Forest Management projects similar to that proposed for Urban Tree Planting projects. Studies such as Nowak and Greenfield (2012) indicate there is sufficient data available to develop such performance standards.

A performance standard approach would reward cities for doing better than ‘business as usual’ as judged by their performance compared to peers in terms of maintaining or expanding canopy coverage, and not effectively preclude cities like Portland with ambitious and aspirational green infrastructure goals from accessing critical new revenue streams that are very much needed to even approach our historical rate of increasing canopy cover.

Sincerely,



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<sup>8</sup> Nowak, D. and Greenfield, E. (2012) “Tree and impervious cover change in U.S.” Urban Forestry & Urban Greening 11(1): 21-30. Available at <http://www.nrs.fs.fed.us/pubs/40114>.