

## Advocacy for "Planting Trees from Warmer Drier Climates"

### Public Survey of King County 30-Year Forest Plan (Seattle region of Washington State)

Comments filed by Connie Barlow

28 February 2020

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Acknowledgment: Thanks to Sarah Brandt of the Open Space / Natural Lands Program of King County, WA (Seattle area) for alerting me to the opportunity to comment online to a [survey](#) wherein I could advocate for planting California's two redwood species as part of the county's forestry climate adaptation response.

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#### BACKGROUND: Purpose of the [30-Year Forest Plan](#)

King County's 2015 [Strategic Climate Action Plan \(SCAP\)](#) called for the county and partners to plant [1 million trees](#) by 2020 and develop a 30-year plan to maintain and enhance the county's tree cover. The purpose of the 30-Year Forest Plan is to develop a shared vision of priorities and goals associated with tree canopy in King County to achieve over the next 30 years. The plan will help ensure that forests in King County continue to mitigate impacts of climate change, while also helping to guide the county towards strategies that allow us to meet multiple goals as we expand and enhance tree cover.

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The survey offered this as one of the potential "actions":

- Experiment with planting trees from warmer, drier climates that might be suitable to changing growing conditions for our forests

Barlow endorsed the above action and added a supportive comment:

## COMMENT BY BARLOW

**"Planting trees from warmer, drier climates" is the primary action that will ensure healthy forests in future decades.**

Because this is a new deliberate action, it needs heightened advocacy by professional foresters and education for the public at large.

Fortunately **Seattle already has been "experimenting" with more southerly species for a century or more, thanks to urban plantings**, including on private properties, and well maintained by generations of gifted horticulturalists. These plantings deserve to be interpreted — notably, long-lived giants need to be categorized as to whether they have received supplemental watering or whether they have grown and thrived without supplemental watering.

**Any giants that, clearly, have not received supplemental water are indicators that no more "experimentation" need be done before additional plantings begin.** Thus, they need to be catalogued and professional forester, horticultural, landscaper, and naturalist volunteers need to walk among these trees conversing, exchanging ideas, and then offering a summary report as to what they have learned.

For example, **I have spent some time video-documenting the Coast Redwoods (Sequoia) and Giant Sequoias (Sequoiadendron) in Seattle, Portland, etc.** and have posted my documentation on youtube here: <http://thegreatstory.org/climate-trees-legacy.html#redwood>

Clearly, **Sequoiadendron is ideal for drought tolerance**, ability to withstand winds (owing to tight branch configuration, which also is superb roosting and storm-avoidance habitat for birds), and its conical shape that diminishes dangers of high, wide, and heavy branchfalls. With a little observational learning, anyone can identify its unique top shape a half-mile away. More, **the few wild populations remaining of this most massive and beloved tree species are doomed for already having responded to post-glacial warming by moving upslope in the southern Sierras rather than advancing northward into the Cascades.** And the warming, drying climate in California has, within the past 2 years, wrought lethal conditions that no scientist thought possible: warmth and drought enabled bark beetles to penetrate the thin-barked upper branches and slowly kill the giants. A scientific paper on this disaster will be published this year. Meanwhile read this press article: <https://www.theguardian.com/environment/2020/jan/18/this->

is-not-how-sequoias-die-its-supposed-to-stand-for-another-500-years-aoe

Title: "This is not how Sequoias die; it's supposed to stand for another 500 years."

Thus by introducing **Giant Sequoia** into parklands and other forested corridors (in the appropriate microsites; notably where native trees have already fallen) **King County will not only be ensuring its own future canopy health but it will be helping a threatened ancient conifer thrive despite the deteriorating climate of its currently native range.** This human endeavor is called "assisted migration" and you can access news and academic articles on that climate adaptation tool at this webpage: <http://www.torreyaguardians.org/assisted-migration.html>

As to **Coast Redwoods**, although a few Seattle urban plantings show capacity to thrive, it is likely that they depend on supplemental water. Owing to their enormous height in coastal northern California, they naturally grow in groups (fusing their roots to increase resistance to wind) and they are singular in obtaining 40% of their moisture during the summer dry season via marine fog. Owing to not having a taproot and thus having widely spreading roots, they are not recommended for lone plantings anywhere near streets and houses. But they would be **ideal as within-forest plantings where Douglas-fir have recently been logged in patches.** Two locales in the Seattle area (not King County) are ideal to **study Coast Redwood ability to thrive in regrowth forest and to "naturalize"** — that is, to disperse seed effectively and for our coastal climate to enable seedlings to establish and thrive with no human help. (Giant Sequoia tends to require fire to open the scales of its cones; hence its seeds cannot disperse absent ground fires.) The two sites are **Hutt Park in Edmonds** and **Seabeck Conference Center on the Kitsap Peninsula** (Episodes 9A and 9F in my list of redwood video documentation here: <http://thegreatstory.org/climate-trees-legacy.html#redwood>)

Ideally, King County would **invite foresters already familiar with Giant Sequoia and others familiar with Coast Redwoods to join King County foresters and skilled King County naturalists and horticulturalists to do field surveys of heritage plantings in the Seattle area** and (for Coast Redwood) of the astonishing ability of Coast Redwood to thrive in regrowth Douglas-fir forest. Hutt Park redwoods were topped by winds owing to west-facing exposure right along the coast. But the Seabeck redwoods on the Kitsap Peninsula are very protected from wind damage, while accessing a great deal of fog.

Robert Van Pelt of UW will be able to recommend California foresters, but know that Richard Winder of UBC has already been mapping out ideal locations for massive forest plantings of Coast Redwood on the outer coast of Vancouver Island.

Contact me, Connie Barlow, for more information. You can find me as the "contact" email on the website of Torrey Guardians, which I founded and which is the first group to use assisted migration to turn around the ongoing decline of a climate-endangered tree (a glacial relict that got trapped in its peak glacial refuge in northern Florida).

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PREVIOUS EMAIL CORRESPONDENCE

**From:** "Brandt, Sarah" <sbrandt@kingcounty.gov>  
**Subject:** RE: considering Coast Redwoods for King County forestry  
**Date:** February 28, 2020 at 5:35:33 PM PST  
**To:** Connie Barlow <conniebarlow52@gmail.com>

Thanks, Connie.

I'm glad you participated in the survey.

Have a great weekend!  
Sarah

**From:** Connie Barlow <conniebarlow52@gmail.com>  
**Sent:** Friday, February 28, 2020 5:27 PM  
**To:** Brandt, Sarah <sbrandt@kingcounty.gov>  
**Subject:** Re: considering Coast Redwoods for King County forestry

[EXTERNAL Email Notice! ] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Sarah -

I just filled out the survey online. Here is the first of six paragraphs in my one very long survey comment:

"Planting trees from warmer, drier climates" is the primary action that will ensure healthy forests in future decades. Because this is a new deliberate action, it needs heightened advocacy by professional foresters and education for the public at large. Fortunately Seattle already has been "experimenting" with more southerly species for a century or more, thanks

to urban plantings, including on private properties, and well maintained by generations of gifted horticulturalists....

May the forest be with you,

Connie Barlow

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On Feb 21, 2020, at 11:23 AM, Brandt, Sarah  
<[sbrandt@kingcounty.gov](mailto:sbrandt@kingcounty.gov)> wrote:

Hi Connie,

Thank you for being in touch, and for these resources, which I've shared with my team.

Your timing is good, as King County is currently asking partners and the public to help us create a 30-Year Forest Plan (or vision) for forest health and tree cover across the county. We have a brief online survey available through early March that I'd encourage you to complete, and here's the link:

<https://publicinput.com/6101/>

This would be a good place to share your thoughts about redwoods (and please feel free to pass this on to your colleagues!).

Please let me know if you have any questions, and thanks again!

Sarah Brandt

Open Space / Natural Lands Program

206.263.5682 | cell 206.681.6073 | [sbrandt@kingcounty.gov](mailto:sbrandt@kingcounty.gov)

200 parks | 175 miles of trails | 29,000 acres of open space

<image001.jpg>

**From:** Connie Barlow <[conniebarlow52@gmail.com](mailto:conniebarlow52@gmail.com)>

**Sent:** Friday, February 14, 2020 8:29 PM

**To:** Brandt, Sarah <[sbrandt@kingcounty.gov](mailto:sbrandt@kingcounty.gov)>

**Cc:** Russell Kramer <[russelld.kramer@gmail.com](mailto:russelld.kramer@gmail.com)>; Philip Stielstra <[pstielstra@comcast.net](mailto:pstielstra@comcast.net)>

**Subject:** Re: considering Coast Redwoods for King County forestry

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Sarah -

As a refresher, see your April 2019 e-response to me at bottom.

**Just a few new things to keep in mind re Coast Redwoods and Giant Sequoias in King County:**

Fall 2019 I posted 3 new videos on Coast Redwoods, at this link: <http://thegreatstory.org/climate-trees-legacy.html#redwood>

Episode 9F (below) is the one that your technical forestry people might be really interested in watching, especially since I pay special attention show aspects of the redwood growth that I need help in interpreting:

**[Pt. 9F - Coast Redwoods Thrive and Multiply at Seabeck, WA 2019](#)**

Crucial documentation of 1980s planting of Coast Redwoods into a Douglas-fir regrowth forest west of Seattle. Site visit by Connie Barlow October 2019 shows thrival of the in-forest plantings plus multiple age groups of evident offspring: seedlings and saplings dispersing beyond the original plantings.

**Pt. 9G - Coast Redwoods at Chetco River Oregon - 2019 site visit**

- This is the northernmost wild Coast redwoods. Steve Sillett, the canopy redwood researcher at Humboldt State U, visited an outlier of this grove this past autumn too and got equally excited by the vibrancy of growth (and reproduction) at this northernmost location. A local forestry grad student UW, **Russell Kramer**, would be the key contact to learn more. I cc'd him above.

**Part 9H - Coast Redwoods: Is climate change already stressing cone production in California?**

One more thing: My observations in King County area are that **lots of Giant Sequoia horticultural plantings are thriving and producing cones, but the cones tend to fall without opening their scales**, so seeds are not cast to the wind and tend to rot inside the fallen cones. But if you gather the cones (as I did the big tree at Prospect and 17Ave NE on Capital Hill) and bring the cones indoors, they open and easily release seeds.

In contrast **Coast Redwoods are fully naturalized here**: they produce cones, and the scales open while the cones are still on the trees. They are not as indestructible in winds nor as hardy in drought as the Giant Sequoias though, so not nearly as abundant in horticultural plantings. Coast Redwoods require careful siting, whereas it seems that Giant Sequoia is happy just about anywhere. When a redwood has no source of pollen, there are no cones. Hence the giant, gorgeous redwood at the corner of 21st Ave NE and Highlands Drive shows no evidence of any cone production. Redwood shallow roots apparently are difficult for homeowners who value their structures (and I have heard ditto for Giant Sequoia), but **both species could be ideal in area parks**. I know you are aware of Philip Stielstra's key role in making such trees available, especially for carbon sequestration. My personal take is I'm just trying to get them ensconced in this area via "assisted migration", as it appears that post-Pleistocene the Coast Redwood could not get any farther north than southernmost Oregon owing to a serpentine rock belt and topography that made a coastal transit subject to salt spray and perhaps tsunamis, whereas this tree needs to be able to venture inland via rivers and thence into wind-protected canyons, such as found along the Chetco River. Know that Steve Sillett at

**On Apr 23, 2019, at 9:30 AM, Brandt, Sarah**  
**<[sbrandt@kingcounty.gov](mailto:sbrandt@kingcounty.gov)> wrote:**

Hi Connie,

Thank you for reaching out, and for this detailed information. There are several of us at King County thinking about forest health and climate adaptation, and I look forward to watching / reading the items you reference below. Please be in touch again when you're in town this fall. It would be great to learn more about the work that you're doing, and to discuss the possibility of your meeting with our forestry team.

Thanks again!

Sarah Brandt

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