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Taproot

December 2024

Happy holidays! In this issue of the *Taproot* newsletter, I wanted to focus on regulations and resources about nonfunctional turf, as well as some research I'm starting that I hope will help with the upcoming transitions. There will certainly be more on this topic to come. I've also included a few fun recent scientific publications for your holiday reading enjoyment. Wishing everyone a wonderful start to the new year!

Please feel free to share this newsletter with anyone who might be interested, or direct them to sign up **here**.

Best regards,

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AB 1572 - Nonfunctional Turf Irrigation Ban

I know that many of you are keenly aware of AB 1572, which bans the use of potable water to irrigate nonfunctional turf on commercial, industrial and institutional properties, including HOA common areas. However, news of this regulation hasn't made its way to everyone, so I thought I'd take this opportunity to highlight some existing resources as we work on developing more. The first of the tiered deadlines, which applies to government and public agency properties, is coming up extremely quickly—January 1, 2027! Please stay tuned and let me know if there's anything I can provide that would be particularly helpful for you in approaching this transition.

Resources:

- CalWEP has a succinct summary of the legislation **here**. (Please note that the bill did pass, and was chaptered on October 13, 2023.)
- The Alliance for Water Efficiency published a report on trends in non-functional turf across the Colorado River Basin, with links to additional resources: ***Non-Functional Turf: 2023 Summary of Programs and Policies***.
- The full text of the legislation is **here**.
- *Save the date*: Feb 4, 2-3:15pm - I will be part of an online panel discussing how this legislation could impact urban heat and best practices for mitigation. Link to come!

Turf Replacement Research

What's the best way to get rid of all this nonfunctional turf and transition residential lawns to low-water landscapes? There are a lot of competing recommendations on the internet, and not a lot of science to back them up. I'm collaborating with Sacramento County to test different methods for replacing turf—specifically, we're comparing sod removal to sheet mulching (smothering turf with cardboard and mulch) to see how these methods impact soil properties, plant growth, and weed pressure. We've encountered a few hurdles getting the project set up, but it's now in progress in a field of nonfunctional turf at the Sacramento County Branch Center. A huge thanks to Ron Nelson, David Dugan, and all the other amazing staff at Parks and beyond, who have been incredibly generous with their time, labor, and knowledge! I am also very grateful to wonderful colleagues at UC ANR and UC Davis who are helping with the study.

Ongoing work on the turf removal research plots at the Sacramento County Branch Center

I also wanted to let you know about a project by Flower to the People, which is testing an overseeding method to create low-water polyculture lawns. I'm not necessarily endorsing this method, but I think it's interesting, and you can participate in their pilot study if you have a 1- to 5-acre CII property you'd like to convert from turf. More info **here**. Let me know if you try it!

Website Migration

Just a heads-up that the UC ANR website is migrating to a new platform, with expected implementation in late February. Hopefully this transition will improve user experience in the future, but we ask for your patience if there are some hiccups along the way.

From the Journals

A few recently published studies that might be of interest:

A scaling law for predicting urban trees canopy cooling efficiency
This study developed a method to determine how much cooling is associated with increasing urban tree canopy at the city scale, using Sacramento as one of its case studies.

Plant native: Comparing biodiversity benefits, ecosystem services provisioning, and plant performance of native and non-native plants in urban horticulture
Native plants very often out-perform non-native plants in supporting biodiversity and providing other ecosystem services in urban areas across the world. However, there are counterexamples.

Artificial light at night decreases leaf herbivory in typical urban areas
Research from Beijing found that urban tree leaves exposed to artificial light at night became tougher and less appealing to herbivorous insects.

Sunscreen from trees? Highlighting innovative wood products for National Forest Products Week
Tree lignin has UV-absorbing properties, offering a promising non-toxic alternative or enhancement to chemical sunscreens.

Honey can reveal clues about environmental pollution near you
Bees pick up contaminants from the environment while foraging; these contaminants end up in their honey, which can provide a snapshot of local environmental pollution.

Visit the UCCE Capitol Corridor website