

## Torreys & aluminum lab result

Inbox x



 **d williams** <dwill4@gmail.com>

11/4/16 ☆



to darren.smith, rhillary ▾

Hi Darren,

I just want to send this lab result to you that says aluminum in the soil isn't stressing the Torrey Pine trees (attached). You don't need to reply.


A couple months ago you put me in touch with Richard Hillary at SERG who recommended testing the calcium to aluminum ratio in the soil and suggested a lab in Modesto. Well, that lab wouldn't do the test and I couldn't find one in Ca that would, but finally found that Penn State Univ would do it so I sent them a sample.

Now that we know aluminum from the soil isn't stressing the trees, I want to find out if it's entering through the needles. My understanding is that a combination of UV radiation burn and acid fog might create a situation where aluminum could enter (like salt on a wound). So, over the winter I'm planning to monitor the acidity of fog as it drips off the needles and if it's less than about PH 5.0, then I'll get that water tested for aluminum, and get back to you next spring.

A bit of info you probably already know: City Horticulturalist, Mike Marika says he approved removal of 38 dead Torrey Pine trees on TP golf course, and suspects boron in the recycled water might have something to do with it. And the people at Channel Islands say none of their Torrey pine trees are dying and they don't have a beetle problem.

Dale Williams



 **Smith, Darren@Parks** <Darren.Smith@parks.ca.gov>

11/4/16 ☆



to ctk, Cara.Stafford, me, rhillary ▾

Thanks for the information Dale. It is really valuable to find or eliminate suspected stressors. Interesting about the Golf Course. I wonder if reclaimed water is bad juju. While we've only dabbled with watering a few trees by the lodge it looks like we should be careful using reclaimed water. With the current restrictions we can't use much potable water for our revegetation projects so I was thinking of asking TP GC for access to their reclaimed. This makes me think we should test it before using if at all.

I still think the main drivers for the TP mortality are evapotranspirative stress (drought and heat) and the presence of beetles.

As for Santa Rosa I don't think they have Ips paraconfusus on the Island. Also, it's cooler there and they get about 10" more rain.

Thanks for Keeping on with this and adding to our knowledge.

Darren



From: d williams [mailto:dwill4@gmail.com]