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From: Anne Fege <afege@aol.com>

Sent: Mon, Apr 29, 2019 10:14 am

Subject: Tree code revisions 3-Maintenance and protection, updates, next steps, and teleconf call May 9 or 10 (Doodle to set time)

To the "Tree code revision 3-Maintenance and protection" group and a few more folks! Now some additional information gathered since the April 8 phone call from Mike Palat and others, and suggested next steps. Mike and I talked earlier this week, he's now at the Western ISA-International Society of Arboriculture meeting in Hawaii, so we'll set a follow-up **teleconference call on May 9 or 10. Doodle poll, <https://doodle.com/poll/5qz3hkhcarum4ve9>**

Three primary topics were identified on April 8 for 3-maintenance-protection, most with adequate national and local guidance. Two more has been described since then, and additional information and insights need to be gathered = codes and practices for irrigation of trees after the initial establishment. See sections FOUR and FIVE below.

Next steps = agenda for teleconf call, suggest Thursday, May 9 or Friday, May 9. I'll send a Doodle scheduling request. We need arborists and landscape architects, both consulting and civic.

1. Tree protection during construction, identify proposed language from current City language and sections that other cities are using.
2. Pruning. Verify that ANSI 300 will be referenced.
3. Tree risk assessment. Verify that code revisions will refer to Joint Powers Insurance Authority document, "Tree Inspection and Maintenance Policy."
4. Discuss ways to approach guidance for watering trees after establishment.
5. Incorporate BMPs to protect birds and other wildlife

ONE. TREE PROTECTION DURING CONSTRUCTION. A simple section is needed in municipal code for tree protection during construction, as well as reference to the ISA specifications. The specific guidelines, "how to" in ISA suggest contract specifications for Tree Protection, at [http://www.urbantree.org/details\\_specs.shtml](http://www.urbantree.org/details_specs.shtml) (13 pages). There are also three diagrams at this webpage, [http://www.urbantree.org/details\\_specs.shtml](http://www.urbantree.org/details_specs.shtml).

For the simple section, there are paragraphs in many City codes, and some are assembled in the document [http://sdrufc.com/wp-content/uploads/2019/04/TreeCodes\\_3-Protection-during-construction\\_26apr19.docx](http://sdrufc.com/wp-content/uploads/2019/04/TreeCodes_3-Protection-during-construction_26apr19.docx), to be discussed and sections selected, on next teleconf call

TWO. PRUNING. There are sufficient standards in the ANSI 300 pruning standards. These need to be referenced in all codes, contracts, and other direction. Contracts need to specific that certified arborists be hired and accountable for the pruning activities. These guidelines are regrettable only available in paper format and for purchase, but they are the industry guidelines and what can-will be cited. A "Clearance Standards for Trees, San Diego County, California, 2010" was developed by SDRUFC-San Diego Regional Urban Forests Council and needs to be reviewed. Is it different from ANSI 300? [http://sdrufc.com/wp-content/uploads/2019/03/SDRUF\\_C Pruning-Clearance-Stds\\_2010.pdf](http://sdrufc.com/wp-content/uploads/2019/03/SDRUF_C Pruning-Clearance-Stds_2010.pdf)

THREE. TREE RISK ASSESSMENT AND LIABILITIES. The group recommend that cities review and incorporate elements from the Joint Powers Insurance Authority document, "Tree Inspection and Maintenance Policy." There are sections on tree inspection items and objectives, restricted maintenance practices, pruning methods, plant health care, wildlife avoidance, watering schedule, insect and disease control, tree removal, and tree planting specifications. Issued in October 2018 and available online at [https://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fwww.perma.dst.ca.us%2Fvertical%2Fsites%2F%257B58E94294-CA71-4F19-A993-2D8F22B384D8%257D%2Fuploads%2Ftree\\_inspection\\_and\\_maintenance.doc](https://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fwww.perma.dst.ca.us%2Fvertical%2Fsites%2F%257B58E94294-CA71-4F19-A993-2D8F22B384D8%257D%2Fuploads%2Ftree_inspection_and_maintenance.doc)

This document is used guide agencies in setting up policies for maintenance and inspection of public trees, and Mike noted that about 100 cities in California are using it. An earlier draft had no arborist, and several arborists worked together to revise it, according to Mike.

FOUR. WATERING TREES AFTER ESTABLISHMENT. This past week, a landscape architect reminded me that there are few or no national or local guidelines on adjusting irrigation system as trees mature and grow. There are abundant specifications and diagrams for installing irrigation for tree establishment (covered in 2-Installation group), including those at <http://www.urbantree.org/>. Now we need to seek guidance from other cities, discussion, and an approach for San Diego trees.

Some of the webpages have guidelines, flyers and videos about watering mature trees:

---Save our water and save our trees, <https://saveourwater.com/save-our-water-and-our-trees/>

---Guidelines for estimating tree water requirements,

[https://ucanr.edu/sites/UrbanHort/Water\\_Use\\_of\\_Turfgrass\\_and\\_Landscape\\_Plant\\_Materials/Estimating\\_Water\\_Requirements\\_of\\_Landscape\\_Trees/](https://ucanr.edu/sites/UrbanHort/Water_Use_of_Turfgrass_and_Landscape_Plant_Materials/Estimating_Water_Requirements_of_Landscape_Trees/)

---Davey, water trees and shrubs with drip irrigation, <http://blog.davey.com/2018/08/how-to-water-trees-and-shrubs-with-drip-irrigation-and-tips/>

---Watering established oak trees (in California),

[https://ucanr.edu/sites/oak\\_range/Oak\\_Articles\\_On\\_Line/Oaks\\_and\\_Landscaping\\_urban\\_forestry\\_/Summer\\_Irrigation\\_of\\_Established\\_Oak\\_Trees\\_243/](https://ucanr.edu/sites/oak_range/Oak_Articles_On_Line/Oaks_and_Landscaping_urban_forestry_/Summer_Irrigation_of_Established_Oak_Trees_243/)

FIVE. Incorporate the new Best Management Practices-BMPs for Tree Care for Birds and Other Wildlife, website at <https://treecareforbirds.com/>, principles in 6-page document at [https://treecareforbirds.com/wp-content/uploads/2018/02/Tail-gate-handout\\_version7\\_cb.pdf](https://treecareforbirds.com/wp-content/uploads/2018/02/Tail-gate-handout_version7_cb.pdf)

*/s/ Anne Fege* Anne S. Fege, Ph.D.

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From: Anne Fege <afege@aol.com>

Sent: Fri, Apr 12, 2019 4:04 pm

Subject: Tree Code revision, notes from 3-Maintenance and Protection group teleconf on April 8.

Notes from teleconference call with Tree Code group for Maintenance-Protection, April 8, 2019, 1:00 to 1:45.

Participating were Mike Palat, Greg Johansen, Erich Kast, Adam Graves, and Anne Fege. This meeting focused on information exchange, need to set next steps and schedule for the group.

Reasons for doing this code review? Offer professional resource to the region about tree codes and specifications, and suggest changes to the City of San Diego codes. Three main topics: Pruning, Tree protection, and Tree risk assessment-liabilities.

#### CURRENT RESOURCES

---Adam, San Diego Zoo follows ISA and ANSI guidelines, still trying to get good system in place and focus on public safety issues. Hoping to get tree maintenance schedule into internal management system. Make observations, check boxes about conditions and needs, forward this to team lead and then Adam. One-year inspection intervals.

---Erich, not much written for maintenance guidelines for City of San Diego's parks. Area managers send requests, Erich checks and recommends prescription or no action. Parks trim palms in shoreline and Mission Beach every two years. No schedule for shade tree trimming in parks. Need proactive inspections, not just referrals by area managers or staff that have no training. Stronger codes would support adequate budgets and staff.

---Greg, City is request driven for maintenance and risk assessment. Would have to educate staff on making relevant technical requests, as staff are not trained or experienced.

JOINT POWERS INSURANCE AUTHORITY. This California authority has a document, "Tree Inspection and Maintenance Policy. There are sections on tree inspection items and objectives, restricted maintenance practices, pruning methods, plant health care, wildlife avoidance, watering schedule, insect and disease control, tree removal, and tree planting specifications. This document is used guide agencies in setting up policies for maintenance and inspection of public trees, and Mike noted that about 100 cities in California are using it. An earlier draft had no arborist, and several arborists worked together to revise it. Policy described at <https://cjpia.org/news/news-and-updates/news-and-updates/2018/10/10/revised-tree-inspection-and-maintenance-policy-template>, but needs a login to see document (but Mike shared it).

CONTRACTS. Mike's work (West Coast Arborists) is defined by contractual terms, for 250 cities in California, some detailed and some simple. Contractual requirements are to follow ANSI A300 pruning standard and ISA BMPs. Pruning standards identify pruning types, depending on the objectives then select pruning type. i.e. crown cleaning takes out dead and broken branches, crown reduction, crown raising, crown restoration. Some language even writes maximum size of pruning cut w/out prior authorization. Sometimes a City will write specifications that are outside standards (crown reduction = topping).

When submitting proposals, Mike specifies ANSI standards so he has a rebuttal to tree topping requests. There is generally a threshold size for removal without a tree risk assessment process. Encinitas tries to save trees, other cities cut trees down when sidewalk buckles. Need range of options to reduce risk and take mitigation steps. Need to look at policies for removing tree ties and stakes during maintenance.

TREE PROTECTION GUIDELINES. Part of ANSI A300. ISA has tree protection during construction. Many other activities affect urban forestry, including buildings, sidewalks, ingress and egress next to trees (i.e. temporary driveways). Biggest hurdle is lack of inter-departmental understanding of decision implications, and the damage other departments' activities cause for trees. Erich recognizes that plans say that City Arborist is consulted, but often happens far into the project. Arborist needs to be involved early in planning process, and in selecting trees for planting.

Erich made a site visit this morning to see roots pruned for ADA walkway, "come out here while we cut the roots" rather than being called when the project design was uncertain. Mike said that, in the past, there was an independent root pruning contractor. This function was combined with the concrete contractor, who now brings their own arborist to take care of roots. There has been a great increase in number of trees lost.

Landscape designs sometimes show existing tree outlines that don't go all the way to the dripline or tree protection zone, so contractors don't have clear direction when they start the project. Need arborists involved from the beginning, for both new and replaced construction.

NEXT STEPS are to compare national ISA and local green book drawings for three areas: Pruning, Tree protection during construction, and Tree risk assessment and liabilities. No planned approach, schedule, or next step-date was discussed.

#### AFTER TELECONFERENCE CALL:

Here's some information that I've gathered over the past months, that may be relevant (or redundant):

Tree protection during construction, reference diagrams, [http://www.urbantree.org/details\\_protection.shtml](http://www.urbantree.org/details_protection.shtml), and suggested specifications [http://www.urbantree.org/pdf\\_pds/UTF\\_Tree\\_Protection\\_Final\\_Version.pdf](http://www.urbantree.org/pdf_pds/UTF_Tree_Protection_Final_Version.pdf) from ISA, for tree protection.

MANY pruning diagrams from ISA, 2014, at <http://www.urbantree.org/Whyprune.shtml>

Existing guidance, City of San Diego = specifications in White Book and diagrams in Green Book, for public works projects in City of San Diego, <https://www.sandiego.gov/publicworks/edocref/greenbook> (I have pulled out the pages and can post on Dropbox or whatever we choose for sharing information.)

City of SD Consistency with Proposed Revisions Chapter 6, Article 2, Division 6 - Street Tree Planting, Maintenance & Protection (revisions developed by Brian, Vince and Anne about a year ago, these sections:

- §62.0610 Safeguarding Trees During Construction.
- §62.0617 Street Tree Maintenance and Watering.
- §62.0618 Tree Removal:
- §62.0619 Treatment and removal of infected and infested trees.
- §62.0621 Measures for Protected Trees

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From: Mike Palat <mpalat@wcainc.com>  
Sent: Mon, Apr 8, 2019 8:52 am  
Subject: RE: Tree Code Revisions for Tree Maintenance and Tree Protection

Looking forward to today's call. Here's a loose agenda

1. Tree maintenance guidelines.
  - a. What resources are out there?
  - b. How do these get to the worker?
  - c. What agencies are good examples?
2. Tree protection guidelines.
  - a. What resources are out there?
  - b. How do these get to the worker?
  - c. What agencies are good examples?

Also, please see the attached document from the Joint Powers Insurance Authority. There are several items that can be glommed from this material related to Tree maintenance and Tree protection for public agencies.