

Tree assessment: Revision 1: added information provided related to target. Barton Springs Pool's "Flo" Pecan. Austin Tx 78704. 08/25/2023



PREPARED FOR:

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Site visit 08-25-2023. Report updated 9/17: added comment including new target information and corrected typos on figure 7 description. Scope: assess leaning Pecan tree. **Conservation rating**: imminent hazard. **Risk rating** for a 1-year timeframe: Extreme Tree size: 45.50 inches diameter at 4.5 ft high.

Recommendation: Remove.

The tree was assessed visually from the root flare to the canopy top. This tree is very likely to fail in the one-year time frame defined, by either having the canopy fail at the second support beam or by collapse of the stem at the root flare area.



A younger and safe tree is already present and established nearby which showcases the foresight of the site managers that have preserved "flo" as long as possible. On a more personal note, we are impressed with the thoroughness of the inspector that has found the infection, as its location is very difficult to access. Indeed, Kresthmaria is a rapidly developing infection with an often-imminent likelihood of failure.

Condition of concern description:

We found 2 condition of concern, one which will become worse due the action of the first condition. 1: **Kretshmaria deusta infection**. The lab results provided by the client as well as our own visual inspection (see attached photos). This fungus is a well know rot mostly visible at the soil line of the root flare. It rapidly damages the root system and sapwood in the root crown and below, with the consequences being a total failure of the tree. It is most found on hackberry trees, being in fact responsible for the extreme majority of total failure of that species, giving the hackberry trees a bad name as a weak tree. It is less commonly found on Pecan trees, possibly because they are well defended against humid soil condition as they are specialized riparian trees. However, once infected, Pecan trees tend to have very poor compartmentalizing which allows a decay organism to spread quickly.

2: **Main stem beyond the second support beam**: Per personal communication from the urban forestry program manager, the existing historical cavity has already been investigated 2 or 3 years ago due to the concern of potential failure of the canopy over the pool area. We have not been provided the results of this investigation. We share that concern seeing as the cavity is significant and could run well beyond the support point.

3: The combination of the 1st and second conditions: As the Kretshmaria infection spreads further and reduces the sap flow capacity to the remaining canopy, we expect the other defects to increase as well, compounding the risk of failure.

Target description:

Beyond the obvious target directly under the tree, mentioned here as target 1 and 2. We were notified on Friday September 15th about a 3rd significant target.

- 1. Walkway under the tree
- 2. Swimmers from Barton Springs pool
- 3. Infrastructure: Bypass located north of the pool itself and passing directly under the tree. City staff has communicated on Friday 15th that this infrastructure is considered critical for the pool. Damage to this infrastructure would have significant consequences for Barton Springs pool. We have no specifics as to how much load the infrastructure can handle but the pattern of failure, we are predicting can possibly impact this infrastructure. We consider that stem to be completely hollow. A failure would likely be from dead vascular tissue collapsing on itself small sections at the time, with the canopy ripping off the second support area and landing in the pool. The risk rating is already Extreme hence this added information only reinforces our rating.



Supporting photographic evidence:



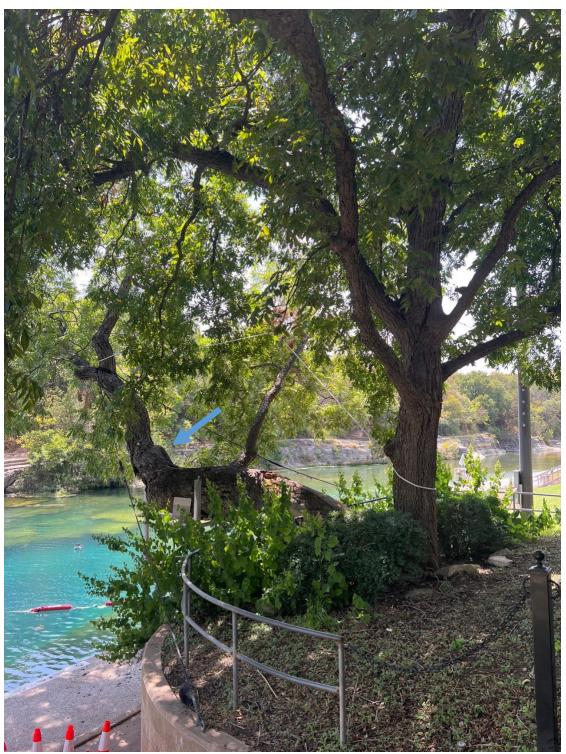
1: Kretshamaria evidence: typical "charcoal" bark collected during our inspection.





2: support system





3: blue arrow showing the defect past the second support point.



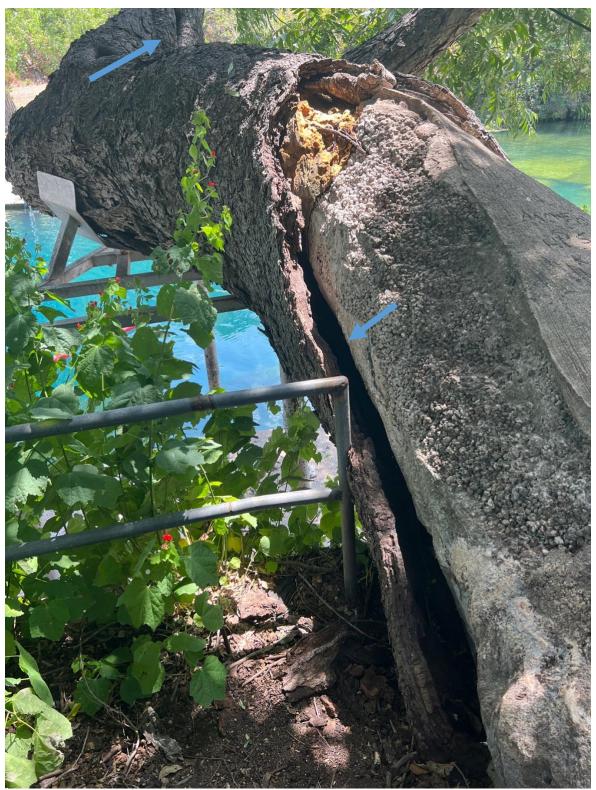






5: second support, defect location, and size of part of concern





6: extend of heartwood loss, alternate view of defect at second support point.





7: root flare on north side, showcasing difficulty of inspection as well as the bark texture change hinting at declining sapwood.





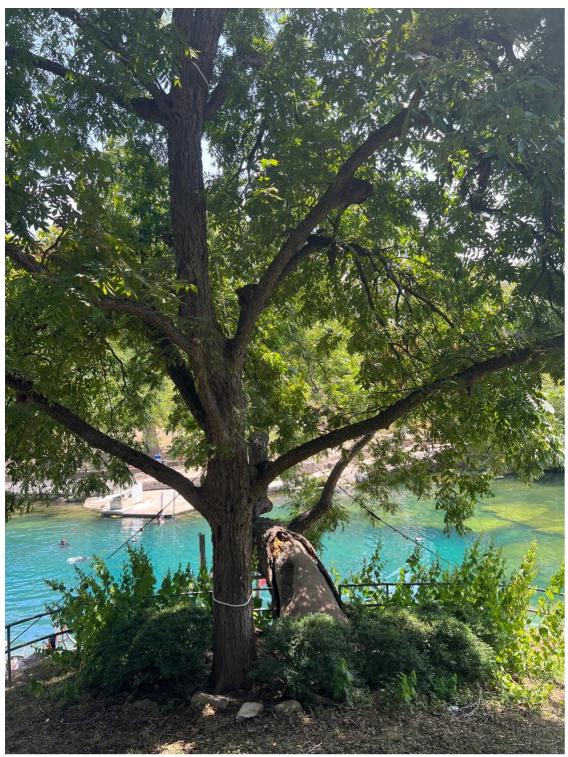
8: opposite side of main stem: no remaining heartwood.





9: opposite view of target area and defect at second support point.





10: showcasing the replacement tree and the sapwood shell from FLO around the concrete fill.



Assessment disclaimer:

Trees inherently pose a certain degree of hazard and risk from breakage, failure or other causes and conditions. Recommendations and assessments that are made by Heritage Tree Care, LLC are intended to minimize or reduce hazardous conditions that made be associated with trees. However, there is and there can be no guaranty or certainty that efforts to correct unsafe conditions will prevent breakage or failure of the tree. Any recommendations made should reduce the risk of tree failure, but they cannot eliminate such risk, especially in the event of a storm or any act of God. There can be no guaranty or certainty that all hazardous conditions will be detected. Common sense, experience, and professional judgment are required from the trained Arborist. It is ultimately up to the trained Arborist on the site to determine the risk potential of a tree to fail.