Big Live Oak Tree

The big Live Oak tree has been losing major limbs over the past several years and has not looked healthy. A study was conducted by Stephanie Adams, PhD, Extension Plant Pathologist, Texas A&M AgriLife Extension to let us know the condition of the tree and how to proceed. **For a full copy of the report with pictures, please contact the church office.**

Here are a few excerpts of that report:

Site conditions

Factor	What was reported	Relevance to the tree
Soil	Loam	Generally a good soil for tree growth
Turfgrass care	Fertilizer applied; no herbicide use recalled	Low concern
Irrigation	Changed significantly in 2026	Likely added stress, but decline began years earlier
Weather	Hot, dry summer in 2026	Added stress on an already weakened tree
Public use	High-use area; tree currently roped or flagged off	Raises the consequences of any limb failure

The 2026 irrigation change is unlikely to be a primary cause of decline, since the canopy was already thinning by 2013. It may be part of the picture, however. Trees and turfgrass need water differently. Trees need long, slow soaking that reaches 10 to 16 inches into the soil, while turf is watered lightly and often. If a replacement tree is planted, irrigation should be set up with this in mind.

Canopy decline over time

Aerial imagery shows the canopy began thinning in 2013 and continued to decline over the following decade.

Image date	Observation
May 2008	Baseline image
March 3, 2013	Earliest signs of stress
September 2013	Canopy visibly thinning
January 23, 2016	Thin areas in the canopy interior, especially the southeast side
January 16, 2021	Continued decline
June 2023	Thin canopy; decline clearly noticeable
January 28, 2024	Continued decline
November 2025	Continued decline
November 2026	Church photographs of current condition

The **June 2023 image** is a useful reference for the future. When a canopy looks like this, it is the stage at which an arborist or Extension specialist should be called in, while treatment still has a chance to stop the decline.

Limb failures

The tree has lost several large limbs, some appearing larger than 20 inches in diameter. Limbs have failed even in calm weather. Each large wound costs the tree energy to seal over, and a tree in decline is unlikely to close wounds of this size. Open wounds also give wood decay fungi a path in, which leads to more limb failures.

Internal decay

The cross-section photograph shows decay that has been present for a long time. The tree was not able to compartmentalize the decay, meaning its natural defenses failed to wall it off. Once decay has spread this way in a stressed tree, it is expected to continue and worsen.

Recommendation: removal

Based on safety and liability, I recommend removing the tree. Three findings support this:

1. The tree has a history of large limb failures, including in calm weather.
2. Internal decay is advanced and not contained, so more failures are likely.
3. The tree stands in a high-use public area, where roping or flagging does not remove the risk to people and property.

If the board chooses to attempt treatment

Treatment is possible but uncertain, and it does not address the hazard from existing decay. Root rot pathogens often move into older, stressed trees. If the fine absorptive roots that take up water and nutrients are damaged, the tree cannot recover until that problem is controlled. The steps would be:

1. **Test the roots.** Collect a sample of absorptive roots (about the width of an eyelash or smaller) and send it to the Texas Plant Disease Diagnostic Lab. Request testing for *Phytophthora* and *Rhizoctonia*.
2. **Treat any pathogen found.** Because the tree is already declining, start with a synthetic fungicide poured on the soil surface. This protects new roots as they emerge. Apply twice this fall and twice next spring, then evaluate the tree's response.
3. **Improve the soil.** If the tree stabilizes and stops declining, address soil conditions such as compaction to give the tree an advantage.
4. **Adjust irrigation.** Water with long, slow soaking that reaches 10 to 16 inches deep, separate from the turfgrass schedule.

Even if treatment succeeds, the tree will remain a limb failure risk because of its existing decay and large wounds. The area would need continued restriction and regular monitoring.