

# TREE BOARD MEETING August 08, 2022; 4:30 PM Woodcreek, Texas

## **MEETING NOTICE**

The Tree Board of the City of Woodcreek, Texas will conduct a meeting at City Hall, 41 Champions Circle, Woodcreek, TX. The meeting will be held on August 8, 2022 at 4:30 PM.

All attendees are encouraged to wear face coverings when a minimum of six-foot social distancing cannot be maintained. Smoking is not allowed anywhere on the property of City Hall.

The public may watch this meeting live at the following link: https://meetings.ipvideotalk.com/ 129686753. The public may listen to this meeting by dialing one of the following numbers: 1(617) 315-8088 or toll free at 1(866) 948-0772. When prompted enter Meeting ID:129686753.

A recording of the meeting will be made and will be available to the public in accordance with the Texas Public Information Act upon written request. This notice, as amended, is posted pursuant to the Texas Open Meetings Act (Vernon's Texas Codes Ann. Gov. Code Chapter 551).

#### **AGENDA**

CALL TO ORDER
ROLL CALL AND ESTABLISH QUORUM
PUBLIC COMMENTS

Any citizen shall have a reasonable opportunity to be heard at any and all meetings of the Tree Board in regard to: (1) any and all matters to be considered at any such meeting, or (2) any matter a citizen may wish to bring to the Board's attention. No member of the Governing Body may discuss or comment on any citizen public comment, except to make: (1) a statement of specific factual information given in response to the inquiry, or (2) a recitation of existing policy in response to the inquiry. Any deliberation of or decision about the subject of the inquiry shall be limited to a proposal to place the subject on the agenda for a subsequent meeting per Texas Local Government code Sec. 551.042.

Citizen comments will be allowed at the beginning of every meeting, or alternatively, before an item on the agenda on which the citizen wishes to speak is to be considered. All citizens will be allowed to comment for three (3) minutes per person and shall be allowed more time at the Chairperson's discretion. In addition, citizens may pool their allotted speaking time. To pool time, a speaker must present the names of three (3) individuals present in the audience who wish to yield their three minutes. Citizens may present materials regarding any agenda item to the City Secretary at or before a meeting, citizens attending any meeting are requested to complete a form providing their name, address, and agenda item/concern, but are not required to do so before speaking and presenting it to the City Secretary prior to the beginning of such meeting. Comments may only be disallowed and/or limited as per Government Code § 551.007(e).

Submit written comments by email to woodcreek@woodcreektx.gov by noon on the day prior to the meeting. Please include your full name, home or work address, and agenda item number. Written comments will be part of the official written record only. A recording of the meeting will be made and will be available to the public in accordance with the Texas Public Information Act upon written request

#### **CONSENT AGENDA**

All the following items are considered self-explanatory by the Council and may be acted upon with one motion. There will be no separate discussion of these items unless a Board Member or Citizen so requests. For a Citizen to request removal of an item from the Consent Agenda, a written request must be completed and submitted to the City Manager.

1. Approval of Tree Board Meeting Minutes from July 11, 2022

#### **REGULAR AGENDA**

- 2. Swearing in of Terri Burney-Bisett as Alternate Member
- 3. Discussion of Tree City USA Requirements
- 4. Discuss and Take Appropriate Action on Recommendation to City Council on Hiring a Parttime Certified Arborist and Amending an Ordinance to Reflect This Position
- 5. Discuss and Take Appropriate Action on Recommendation to City Council on Hiring a Creating a City Map of Oak Wilt Hot Zones
- 6. Discuss and Take Appropriate Action on Recommendation to City Council on Incentives for the Prevention of Oak Wilt
- 7. Discuss and Take Appropriate Action on Recommendation to City Council on Mailing Residents an Oak Wilt Brochure from the Texas A&M Forest Service
- 8. Discuss and Take Appropriate Action on Creating an Action Plan Regarding Oak Wilt with Recommendations for the City Council.
- 9. Discuss Options and Activities for the Arbor Day Event Scheduled for Tues. Oct. 4, 2022 at Camp Young Judaea Beginning at 2:30PM
- 10. Discuss Potential Grant Application for Oak Wilt Prevention from TPWD and/or LCRA
- 11. Discuss and Take Appropriate Action on Reusing the Wood from the Dead Trees in City Rightof-Way

#### **ADJOURN**

The Governing Body may retire to executive session any time between the meeting's opening and adjournment for the purpose of consultation with legal counsel pursuant to Chapter 551.071 of the Texas Government Code; discussion of personnel matters pursuant to Chapter 551.074 of the Texas Government Code; deliberation regarding real property pursuant to Chapter 551.072 of the Texas Government Code; deliberation regarding economic development negotiations pursuant to Chapter 551.087 of the Texas Government Code; and/or deliberation regarding the deployment, or specific occasions for implementation of security personnel or devices pursuant to Chapter 551.076 of the Texas Government Code. Action, if any, will be taken in open session.

This agenda has been reviewed and approved by the City's legal counsel and the presence of any subject in any Executive Session portion of the agenda constitutes a written interpretation of Texas Government Code Chapter 551 by legal counsel for the governmental body and constitutes an opinion by the attorney that the items discussed therein may be legally discussed in the closed portion of the meeting considering available opinions of a court of record and opinions of the Texas Attorney General known to the attorney. This provision has been added to this agenda with the intent to meet all elements necessary to satisfy Texas Government Code Chapter 551.144(c) and the meeting is conducted by all participants in reliance on this opinion.

#### Attendance by Other Elected or Appointed Officials:

It is anticipated that members of other city board, commissions and/or committees may attend the meeting in numbers that may constitute a quorum of the other city boards, commissions and/or committees. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a

meeting of the other boards, commissions and/or committees of the City, whose members may be in attendance. The members of the boards, commissions and/or committees may participate in discussions on the same items listed on the agenda, which occur at the meeting, but no action will be taken by such in attendance unless such item and action is specifically provided for on an agenda for that board, commission or committee subject to the Texas Open Meetings Act.

The City of Woodcreek is committed to compliance with the Americans with Disabilities Act. Reasonable modifications and equal access to communications will be provided upon request. Please call the City Secretary's Office at 512-847-9390 for information. Hearing-impaired or speech disabled persons equipped with telecommunications devices for the deaf may call 7-1-1 or may utilize the statewide Relay Texas program at 1-800-735-2988.

Pursuant to Section 30.07, Penal Code (trespass by license holder with an openly carried handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law), may not enter this property with a handgun that is carried openly.

I certify that the above notice was posted on the 2nd day of August, 2022 at 2:15PM.

Bv:

Suzanne J. MacKenzie, City Secretary

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# TREE BOARD MEETING July 11, 2022; 4:30 PM Woodcreek, Texas

#### **MINUTES**

#### **CALL TO ORDER**

Chairperson Jones called the meeting to order at 4:34PM.

#### **ROLL CALL and ESTABLISH QUORUM**

**PRESENT** 

Chairperson Cynthia Jones Vice-Chair Monica Rasco Member Dorothy Tasian Council Liaison Brent Pulley

**ABSENT** 

Member Jacob McElroy Member Iris Ramos Alt. Member Nan Simpson

STAFF PRESENT

Administrative Assistant Maureen Mele

#### **PUBLIC COMMENTS**

A public comment was made by Whitney Miller.

#### **CONSENT AGENDA**

1. Approve Tree Board Meeting Minutes from June 13, 2022

Vice-Chair Rasco made a motion to approve the Tree Board meeting minutes from June 13, 2022. The motion was seconded by Member Tasian.

A roll call vote was held.

Voting Yea: Vice-Chair Rasco, Member Tasian, Chairperson Jones

Absent and Not Voting: Member McElroy, Member Ramos

The motion carried with a 3-0-0 vote.

#### **REGULAR AGENDA**

Discuss and Take Appropriate Action to Request the City of Woodcreek Tree Board to Research, Create an Application Package and Apply for the Texas Parks and Wildlife Co-Op Grant (Grummert)

This agenda item was addressed after the other agenda items.

#### 2. Discuss and Take Appropriate Action on Accepting the Recommended Tree Ordinance

This agenda item was tabled because the proposed Tree Ordinance had not been revised by the City Council since the recommendations discussed at the Tree Board meeting of June 13, 2022.

#### 3. Report and Discuss the Tree Inventory as Developed by Tree Board Members

The members reported and discussed the tree inventories they had conducted throughout the City of Woodcreek. The list will be compiled into one document by Vice-Chair Rasco. The list of dead trees in the City's right-of-way, as determined by the Tree Board members, will be forwarded to city staff and Council Liaison Pulley.

# 4. Discuss and Take Appropriate Action on Potential Arbor Day Activities Being Held on Oct. 4, 2022

A motion was made by Chairperson Jones to form a subcommittee of Member Tasian and Terri Burney-Bisett to plan Arbor Day activities. The motion was seconded by Vice-Chair Rasco.

After discussion, a roll call vote was held.

Voting Yea: Chairperson Jones, Member Tasian, Vice-Chair Rasco Absent and Not Voting: Member McElroy, Member Ramos

The motion carried with a 3-0-0 vote.

# 5. Discuss and Take Appropriate Action on Budget Request for Materials to Educate the Community

A motion was made by Vice-Chair Rasco to have a budget request of \$5,000 to the City Council to educate the community. The motion was seconded by Member Tasian.

After discussion, a roll call vote was held.

Voting Yea: Member Tasian, Vice-Chair Rasco, Chairperson Jones Absent and Not Voting: Member McElroy, Member Ramos

The motion carried with a 3-0-0 vote.

Discuss and Take Appropriate Action to Request the City of Woodcreek Tree Board to Research, Create an Application Package and Apply for the Texas Parks and Wildlife Co-Op Grant (Grummert)

A motion was made by Member Tasian for Vice-Chair Rasco to contact Councilmember Grummert to explore this grant process. The motion was seconded by Vice-Chair Rasco.

A roll call vote was held.

Voting Yea: Chairperson Jones, Vice-Chair Rasco, Member Tasian Absent and Not Voting: Member McElroy, Member Ramos

The motion carried with a 3-0-0 vote.

#### **ADJOURN**

Chairperson Jones ad	journed the I	meeting a	at 5:13PM.
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Cindy Jones, Chairperson	Suzanne Mac Kenzie, City Secretary

Item 2.





#### Application for Appointment to the Woodcreek Tree Advisory Board

This Advisory Board acts in an advisory capacity to Council and shall: (1) Coordinate and promote Arbor Day activities; (2) Review and update a five-year plan to plant and maintain trees on city property; (3) Support public awareness and education programs relating to trees; (4) Review city concerns relating to tree care; (5) Submit at least an annual report of its activities to the Council; (6) Assist with the annual application to renew the Tree City USA designation, (7) Develop lists of recommended and prohibite trees/species for planting on city property, and (8) Other duties that may be assigned by City Council. The Tree Advisory Board consists of five members and two alternotes appointed by the City Councilmembers, and is subject to the Texas Open Meetings Act.

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	September 1997
failing Address: PO Box 706	WIMBERLEY
elephone Number(s): Home:	cell: (5/2) 923-2293
Mail Address: TBISETT @ GMAI	L. COM
lumber of Years Living in Texas: 72 Number	r of Years Living in Woodcreek: MAY 13 - PRES. PREVIOUS IN EASCE
o you want your phone number(s)/email released in a Publ	ic Information Request?   Yes   No   N
o you or your employer have any business or other dealing	s with the City of Woodcreek which may
present a conflict of Interest? Yes	No If "Yes", please explain:
TREE HUGGER - AV	D GARDENER
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City of Woodcreek Application for Appointment to Tree Board: 01/15/2022

# <u>Tree City USA Standards</u> (from Tree City USA at arborday.org)

To qualify as a Tree City USA community, you must meet four standards established by the Arbor Day Foundation and the National Association of State Foresters. These standards were established to ensure that every qualifying community would have a viable tree management program and that no community would be excluded because of size.

Four Standards for Tree City USA Recognition

### STANDARD 1 A Tree Board or Department

Someone must be legally responsible for the care of all trees on city- or townowned property. By delegating tree care decisions to a professional forester, arborist, city department, citizen-led tree board or some combination, city leaders determine who will perform necessary tree work. The public will also know who is accountable for decisions that impact community trees. Often, both professional staff and an advisory tree board are established, which is a good goal for most communities.

The formation of a tree board often stems from a group of citizens. In some cases a mayor or city officials have started the process. Either way, the benefits are immense. Involving residents and business owners creates wide awareness of what trees do for the community and provides broad support for better tree care.

# STANDARD 2 A Tree Care Ordinance

A public tree care ordinance forms the foundation of a city's tree care program. It provides an opportunity to set good policy and back it with the force of law when necessary.

A key section of a qualifying ordinance is one that establishes the tree board or forestry department—or both—and gives one of them the responsibility for public tree care (as reflected in Standard 1). It should also assign the task of crafting and implementing a plan of work or for documenting annual tree care activities.

Qualifying ordinances will also provide clear guidance for planting, maintaining and/or removing trees from streets, parks and other public spaces as well as

activities that are required or prohibited. Beyond that, the ordinance should be flexible enough to fit the needs and circumstances of the particular community.

For tips and a checklist of important items to consider in writing or improving a tree ordinance, see Tree City USA Bulletin #9.

#### STANDARD 3

#### A Community Forestry Program With an Annual Budget of at Least \$2 Per Capita

City trees provide many benefits—clean air, clean water, shade and beauty to name a few—but they also require an investment to remain healthy and sustainable. By providing support at or above the \$2 per capita minimum, a community demonstrates its commitment to grow and tend these valuable public assets. Budgets and expenditures require planning and accountability, which are fundamental to the long-term health of the tree canopy and the Tree City USA program.

To meet this standard each year, the community must document at least \$2 per capita toward the planting, care and removal of city trees—and the planning efforts to make those things happen. At first this may seem like an impossible barrier to some communities. However, a little investigation usually reveals that more than this amount is already being spent on tree care. If not, this may signal serious neglect that will cost far more in the long run. In such a case, working toward Tree City USA recognition can be used to reexamine the community's budget priorities and redirect funds to properly care for its tree resources before it is too late.

# STANDARD 4 An Arbor Day Observance and Proclamation

An effective program for community trees would not be complete without an annual Arbor Day ceremony. Citizens join together to celebrate the benefits of community trees and the work accomplished to plant and maintain them. By passing and reciting an official Arbor Day proclamation, public officials demonstrate their support for the community tree program and complete the requirements for becoming a Tree City USA!

This is the least challenging—and probably most enjoyable—standard to meet. An Arbor Day celebration can be simple and brief or an all-day or all-week observation. It can include a tree planting event, tree care activities or an award ceremony that honors leading tree planters. For children, Arbor Day may be their only exposure to the green world or a springboard to discussions about the complex issue of environmental quality.

The benefits of Arbor Day go far beyond the shade and beauty of new trees for the next generation. Arbor Day is a golden opportunity for publicity and to educate homeowners about proper tree care. Utility companies can join in to promote planting small trees beneath power lines or being careful when digging. Fire prevention messaging can also be worked into the event, as can conservation education about soil erosion or the need to protect wildlife habitat.



## INTRODUCTION

Oak wilt, one of the most destructive tree diseases in the United States, is killing oak trees in Central Texas at epidemic proportions (fig. 1). Oak wilt is an infectious disease caused by the fungus Bretziella fagacearum, which invades and disables the water-conducting system in susceptible trees. All oaks (Quercus spp.) are susceptible to oak wilt to some degree, but some species are affected more than others. Red oaks, particularly Spanish (now Texas red) oak (Q. buckleyi), Shumard oak (Q. shumardii), and blackjack oak (Q. marilandica), are extremely susceptible and may play a unique role in the establishment of new oak wilt infections. White oaks, including post oak (Q. stellata), bur oak (Q. macrocarpa), and chinkapin oak (Q. muehlenbergii), are less susceptible to the fungus but also may die from oak wilt. Live oaks (Q. virginiana and Q. fusiformis) are intermediate in susceptibility to oak wilt, but are most seriously affected due to their tendency to grow from root sprouts and form vast interconnected root systems that allow movement (or spread) of the fungus among adjacent trees. The successful management of oak wilt depends on correct diagnosis and an understanding of how the pathogen spreads in different oak species.

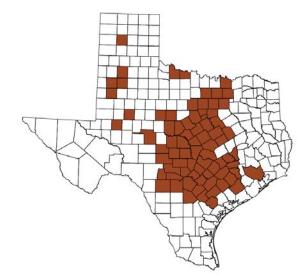


Figure 1 - Shaded areas indicate counties in Texas with confirmed cases of oak wilt.

## **IDENTIFICATION OF OAK WILT**

Foliar symptoms, patterns of tree mortality, and the presence of fungal mats can be used as indicators of oak wilt. However, laboratory isolation of the fungus is recommended to confirm the diagnosis. A trained expert should be consulted when in doubt.

#### PATTERNS OF TREE MORTALITY

Most live oaks defoliate and die over a 3 to 6 month period following initial appearance of symptoms. Some live oaks take longer to die, and a few untreated trees may survive many years in various stages of decline. A few live oaks in oak wilt centers escape infection or may be resistant to the fungus and apparently remain unaffected by the disease.

Red oaks seldom survive oak wilt and often die within 4 to 6 weeks following the initial appearance of symptoms. During summer months, diseased red oaks often can be spotted from a distance because of their bright autumn-like coloration in contrast to the surrounding greenery.

#### **FOLIAR SYMPTOMS**

Leaves on diseased live oaks often develop yellow (chlorotic) veins that eventually turn brown (necrotic), a symptom of oak wilt that specialists call "veinal necrosis" (fig. 2). Defoliation may be rapid, and dead leaves with brown veins often can be found under the tree for months after defoliation. Leaves may exhibit other patterns of chlorosis and necrosis, such as interveinal chlorosis, marginal scorch, or tip burn, but these symptoms are less reliable than veinal necrosis for diagnosing oak wilt in live oaks.

Foliar symptoms of oak wilt on red oaks are less distinct. In early spring, young leaves simply wilt, turning pale green and brown. Mature leaves develop dark green water soaking symptoms or turn pale green or bronze, starting at the leaf margins and progressing inward.



Figure 2 - Live oak leaves showing oak wilt symptoms known as veinal necrosis.

#### **FUNGAL MATS**

Fungal mats (fig. 3a, b) are reliable indicators for diagnosis of oak wilt. These specialized spore-producing structures most often form in the spring on red oaks that developed advanced symptoms of oak wilt the previous late summer or fall. Fungal mats are not known to occur on live oaks or white oaks. Oak wilt infections of red oaks in late spring and summer usually do not give rise to fungal mats due to high temperatures and low soil moisture conditions. Fungal mats can be found by looking for inconspicuous narrow cracks in the bark of dying red oaks leading to hollow areas between the bark and wood. They often have a distinctive odor similar to fermenting fruit. Fungal mats can be exposed for inspection by chopping away the loose bark.





Figure 3 - (a) exposed fungal mat on Texas red (Spanish) oak; (b) multiple oak wilt fungal mats on dead red oak.

#### **LABORATORY DIAGNOSIS**

Oak wilt diagnoses may be confirmed by isolating the fungus from diseased tissues in the laboratory. Samples can be submitted to: Texas Plant Disease Diagnostic Laboratory, 1500 Research Parkway, Suite A130, Texas A&M University Research Park, College Station, TX 77845. A county extension agent, Texas A&M Forest Service forester, or trained arborist should be consulted for proper collection and submission of samples.

## SPREAD OF OAK WILT

#### **ESTABLISHMENT OF NEW INFECTIONS**

Red oaks play a key role in the establishment of new infection centers. The oak wilt fungus may be spread overland by insect vectors and by man through movement of wood from infected red oaks to other locations. Fungal mats form beneath the bark of certain diseased red oaks in late fall and especially in spring, but do not form on live oaks or white oaks.

Individual fungal mats produce spores for only a few weeks. The fruity odor of fungal mats attracts many kinds of insects, the most of which are sap feeding nitidulid beetles. The fungus is the three small beetles as they emerge from mats and visit fresh wounds on healthy trees, both red oaks and live oaks. Fungal mats are most commonly formed on standing trees, but they also can develop on logs, stumps, and fresh firewood cut from diseased red oaks.

#### SPREAD THROUGH ROOTS

Live oaks tend to grow in large, dense groups (called motts) with interconnected roots. The fungus may be transmitted from one tree to another through these root connections. Root transmission is a proven means of spread from one live oak to another. As a result, patches of dead and dying trees (infection centers) are formed. Infection centers among live oaks in Texas expand at an average rate of 75 ft per year, varying from no spread to 150 ft in any one direction. Occasionally, the oak wilt fungus is transmitted through connected roots between red oaks, but movement through roots is slower in red oaks and occurs over shorter distances than in live oaks.

## **DISEASE MANAGEMENT**

There are currently four primary approaches used for oak wilt management in Texas. Successful control usually depends on an integrated program incorporating measures from all four approaches. The first approach attempts to prevent the formation of new oak wilt infection centers by eliminating diseased red oaks, handling firewood properly, and painting wounds on healthy oaks. The second approach involves trenching or other measures to disrupt root connections responsible for root transmission of the pathogen. Thirdly, injections of the fungicide propiconazole (AlamoTM) into individual, high value trees help reduce crown loss and may extend the life of the tree. These measures will not cure oak wilt, but will significantly reduce tree losses. Finally, the recommended method to reduce the occurrence of oak wilt is to plant and maintain a diversity of native tree species in the landscape, monitor for tree health, and treat oak wilt infections as soon as they are detected.



#### PREVENTING NEW INFECTIONS

Infected red oaks that die in late summer or fall should be cut down and burned or buried soon after discovery to prevent insects from transmitting spores from fungal mats that may form on these trees in the fall or following spring. If this is not possible, the trees should be injected with herbicide or deeply girdled with an ax and stripped of all bark 2 to 3 ft above the soil line. Drying of the wood before fall discourages formation of fungal mats.

All wounding of oaks (including pruning) should be avoided from February through June. The least hazardous periods for pruning are during the coldest days in midwinter and extended hot periods in mid to late summer. Regardless of season, all pruning cuts or other wounds to oak trees, including freshly cut stumps and damaged surface roots, should be treated immediately with a wound or latex paint to prevent exposure to contaminated insect vectors.

Transporting unseasoned firewood from diseased red oaks is a potential means of spreading the oak wilt fungus. Oak wilt cannot be transmitted by burning infected firewood, but fungal mats may form on unseasoned firewood in storage. Presently, no vectors have been proven to transmit the fungus from live oaks to other oak trees, but diseased wood from any oak species should never be stored near healthy oak trees unless precautions are taken. It is best to purchase wood that has been thoroughly dried for at least one full year. If firewood from diseased trees is stored near healthy oak trees, it should be covered with clear plastic with the edges buried to prevent insects from leaving the pile.

#### STOPPING SPREAD THROUGH ROOTS

Measures can be taken to break root connections between live oaks or dense groups of red oaks to reduce or stop root transmission of the oak wilt fungus. Though not 100% effective, the most common technique is to sever roots by trenching at least 4 ft deep with trenching machines, rock saws, or ripper bars. Trenches more than 4 ft deep may be needed to assure control in deeper soils. Although not required, commercially available root barriers may be inserted in the trench to reduce the potential for trench breakouts. Correct placement of the trench is critical for successful protection of uninfected trees. There is a delay between colonization of the root system by the fungus and appearance of symptoms in the crown. Therefore, all trees with symptoms should be carefully identified first. Then, the trench should be placed a minimum of 100 ft beyond these symptomatic trees, even though there may be "healthy" trees at high risk of infection inside the trench. Trees within the 100 ft barrier, including those without symptoms, may be uprooted or cut down and removed to improve the barrier to root transmission.

Tree removal should be initiated after trenching, starting with healthy trees adjacent to the trench and gradually working inward to include symptomatic trees. Oak wilt infection centers are more easily suppressed when detected early, before they become too large. The untreated trees immediately outside the treated area should be closely monitored for several years. If the pathogen appears to have crossed a barrier, the same measures (new trenching and treatment of trees within the barrier) should be repeated while the diseased site is still small.

#### FUNGICIDE TREATMENT

Propiconazole (AlamoTM) is the only fungicide scientifically tested and proven effective (when properly applied prior to infection) for use as a preventative treatment to protect live oaks. Limited success also may be achieved in trees treated with therapeutic injections during the earliest stages of infection. The fungicide is injected into the tree's water-conducting vascular system through small holes drilled into the root flares at the base of the tree. Treatment success depends on the health of the candidate tree, application rate, and injection technique. Injection should be done only by a trained applicator.

Fungicide injection does not stop root transmission of the fungus. This treatment, therefore, is used best in conjunction with trenching or to protect individual high-value trees in situations where trenching is impractical. Healthy live oaks at high risk of infection in advance of an expanding infection center are preferred candidates for injection. Foliar symptoms can be used in selecting trees as candidates for preventative or therapeutic treatments. A tree with foliar symptoms of oak wilt, as well as any non-symptomatic tree immediately adjacent to a tree with symptoms, should receive a therapeutic treatment. If symptoms are observed in more than 30 percent of the crown, it is unlikely a fungicide injection will be effective. Injections of non-symptomatic trees at greater distances from symptomatic trees (i.e., 75 to 150 ft) will yield the best results for preventative treatments.

There are several steps in the injection process that require careful attention following tree selection. Mixing the fungicide solution, exposing and drilling holes in the root flares, connecting the injection apparatus to the tree, and monitoring uptake must be done according to label specifications and directions. Treatment may take several hours. Information and training are available through county extension or Texas A&M Forest Service offices. The services of a professional arborist or other experienced person may be required to assure proper injection.



United States

USDA Forest Service outhern Research Station

Texas A&M Forest Service

## INTEGRATED OAK WILT MANAGEMENT

Early detection and prompt action are essential for successful management of oak wilt. The specific measures taken depend on several circumstances outlined in this brochure, but should include appropriate combinations of the following:

#### PREVENT NEW INFECTIONS

- Cut and dispose of diseased red oaks immediately.
- Avoid wounding oak trees, including pruning, from February through June, and immediately paint all wounds and fresh stumps, regardless of the season.
- · Handle oak firewood cautiously, burn all firewood before spring, and never store unseasoned oak wood from infected trees near
- Cover unseasoned firewood (from infection centers and unknown

#### 2 STOP SPREAD THROUGH ROOTS

- Install a trench at least 4 ft deep and 100 ft beyond the perimeter of infection centers to break up root connections.
- Cut or uproot all trees within the 100 ft barrier (except those injected with fungicide).

#### INJECT HIGH-VALUE OAKS WITH FUNGICIDE

- · Identify susceptible, high-value oak trees in proximity to expanding oak wilt infection centers.
- Consult a trained and licensed arborist (with certified applicator's license) for treatment of susceptible trees with injections of propiconazole (AlamoTM).
- For guidance on selecting an arborist, visit isatexas.com.

#### 4 DIVERSIFY YOUR LANDSCAPE

- · Plant a variety of tree species to lessen the potential impact of
- Favor a diversity of tree species in the landscape by planting trees that are adapted to your area.
- Avoid wounding susceptible oaks during planting.
- For more information on oak wilt in Texas, visit texasoakwilt.org.

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Pesticides used improperly can be injurious to humans, animals, and plants. Follow directions and heed all

The use of chemical, trade, or institution names in this brochure is for the information and convenience of the reader. Such use does not constitute official endorsement or approval by the U.S. Department of Agriculture or the Texas A&M Forest Service of any product or service at the exclusion of others that also may be available.

David N. Appel, Department of Plant Pathology & Microbiology, Texas A&M University, College Station, TX 77843 R. Scott Cameron, formerly with Texas A&M Forest Service, now retired from International Paper Company,

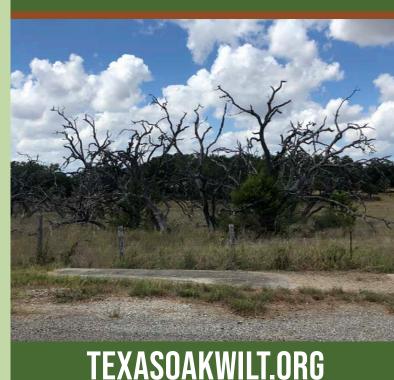
A. Dan Wilson, Southern Hardwoods Laboratory, USDA Forest Service, Southern Research Station, Stoneville,

Jerral D. Johnson, Texas A&M AgriLife Extension Service, College Station, TX 77843 (retired)

Financial assistance for this publication was provided by the USDA Forest Service and the Texas Cooperative Oak Wilt Suppression Project, Texas A&M Forest Service.



# HOW TO **IDENTIFY AND MANAGE** OAK WILT IN TEXAS





# **Recreation Grants**





Recreation Grants has been assisting hundreds of communities across Texas with their outdoor recreation needs since 1965 through our grant assistance and outreach programs. From the largest metropolis to the smallest rural community these programs help to build new parks, conserve natural resources, provide access to water bodies, develop educational programs for youth, and much more. Providing grants to communities across Texas helps build access to outdoor experiences and encourages a connection with nature that is vital for promoting conservation and good environmental stewardship among Texans young and old.

Through our programs we build long-term partnerships that assist TPWD in our mission to manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

Our highly qualified staff administers the following programs: Local Park Grants (Outdoor, Indoor, and Small Community), Community Outdoor Outreach Program (CO-OP), Recreational Trails Grants, Off Highway Vehicle (OHV) Grants, Boating Access Grants, Boating Infrastructure Grants (BIG), Boat Sewage Pumpout Grants, and Target Range Grants.

# **Grant Deadlines**



Grant Program	Grant Ceiling	Annual Deadline
Boating Access	\$500,000	TBD
Boating Infrastructure	Competitive	TBD
Boat Sewage Pump-out	Competitive	December 31
Community Outdoor Outreach Program	\$60,000	November 1
Local Parks Urban Outdoor Recreation	\$1.5 million	August 1
Local Parks Non-Urban Outdoor Recreation	\$750,000	August 1
Local Parks Small Community Recreation	\$150,000	August 1
Local Parks Urban Indoor Recreation	\$1.5 million	TBD
Local Parks Non-Urban Indoor Recreation	\$1 million	TBD
Recreational Trails	\$300,000	February 1
Target Range Program	Competitive	TBD

https://tpwd.texas.gov/business/ grants/recreation-grants/copy\_of\_ grant-deadlines

# **CO-OP Grants**

# **About**

The Community Outdoor Outreach Program (CO-OP) grant provides funding to tax-exempt organizations for programming that engages under-served populations in TPWD mission-oriented outdoor recreation, conservation and environmental education activities.

# Who We Fund

Grants are available to tax-exempt organizations such as local government, Universities, school districts and non-profit organizations. This program builds relationships with constituencies who have been under-represented in Texas Parks & Wildlife Department activities and programs. Target audiences served include low income, ethnic minority, female and individuals with a disability.

# What We Fund

CO-OP provides grants to tax- exempt organizations ranging from \$5,000 to \$60,000. This is a reimbursement grant program. Recipients must purchase eligible items and submit proper documentation before being reimbursed. Eligible organizations can apply to use these funds for programming expenses such as personnel, food, travel expenses, participant liability insurance, entrance fees, outdoor recreation equipment and environmental education supplies.

# When We Fund

CO-OP grants are funded annually following the application deadline of November 1st each year.

# Texas Parks and Wildlife Recreation Grants Access

# Accessing the Recreation Grants Online Grant Management System - RGO 2020

If you wish to apply for one of our currently available grant opportunities, or manage your awarded Recreation Grants project(s), you will need to use **RGO 2020**, our online Grant Management System.

## Click HERE to access RGO 2020

https://tpwd-recgrants.intelligrants.com/login2.aspx

# **CO-OP Grants Staff**

# CO-OP Program Manager

# Carly Blankenship

Phone: (512) 389-8209

Email: carly.blankenship@tpwd.texas.gov

# CO-OP Grant Coordinator

# Jessica Lagalo

Phone: (512) 389-8254

Email: jessica.lagalo@tpwd.texas.gov