Gold Spotted Oak Borer: **THE THREAT IS REAL**

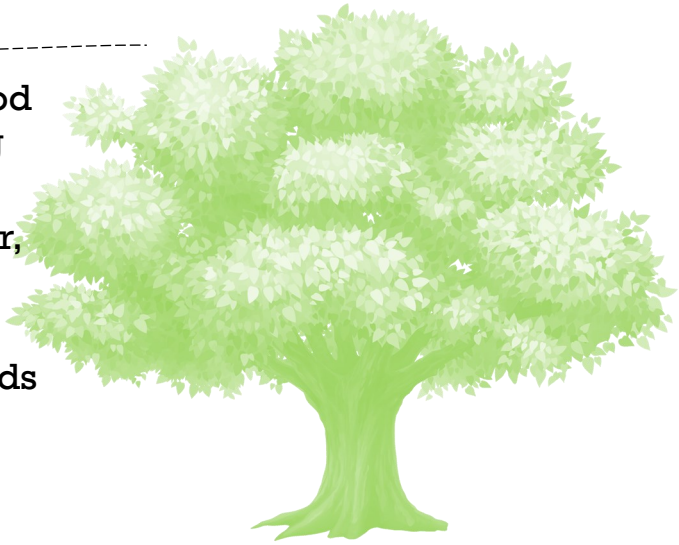
The Gold Spotted Oak Borer (GSOB) is an invasive pest that has killed tens of thousands of mature oak trees across 5 Southern California counties, **including Orange County**, and is affecting urban communities, parks, and wildland habitat.

As the infestation continues to spread, it is resulting in economic, ecological, cultural, social, and aesthetic losses to the affected regions.

GSOB larvae burrow into oak trees and feed off the living wood. The beetle larvae overwinter in the bark and are easily moved in infested wood. Several generations of beetles later, the tree dies and the beetles move on to the next susceptible oak tree, repeating the process. The dead and dying oak trees left behind increase the accumulation of hazardous fuels creating dangerous wildfire conditions.

How you can help:

- **Do not move firewood.** Moving firewood is the primary contributor for spreading the GSOB.
- **Get Informed.** Learn how to ID, monitor, and report suspect trees by visiting **GSOB.org**.
- **Spread Awareness.** Educate your friends and family.



TREE SURVEY IN PROGESS

OCFA is conducting ground surveys in your area for invasive tree pests through leading experts, UC Cooperative Extension, to identify and monitor any potential threat.

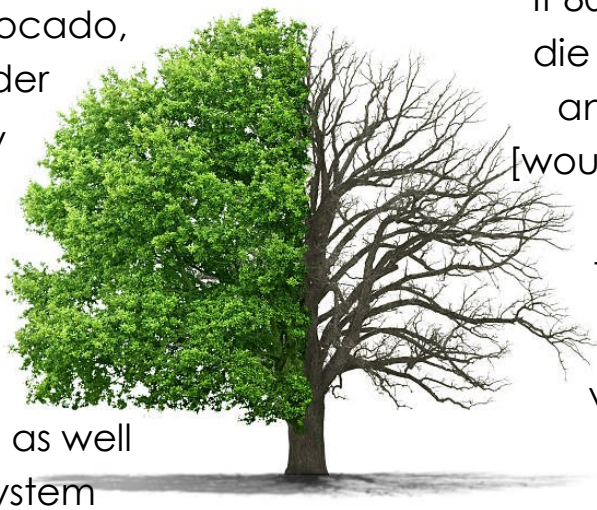
Cap and Trade Dollars at Work

Invasive Shot Hole Borers
TINY PESTS, BIG TROUBLE!

Invasive Shot-Hole Borers (ISHB) are infesting thousands of trees in Orange County and posing a danger for both trees in urban communities and wildlands.

TOO MUCH TO LOSE

Common trees like sycamore, cottonwood, willow, avocado, white alder, and box elder appear to be especially susceptible. Our trees help keep our cities cool, remove pollutants from the air we breathe and the water we drink, as well as [provide] other ecosystem services that make our cities livable.[1]



THE COST IS TOO HIGH

If 80% of vulnerable trees die by 2031, the removal and replacement costs [would be] approximately $25.4 billion. The loss of ecosystem services is also great, valued at $987 million annually.[1]

DEADLY FUNGUS TRANSMITTED BY INVASIVE SHOT HOLE BORERS

ISHB burrow through the tree bark by making a hole the size of the tip of a medium ball-point pen. Once inside, it creates a series of galleries to lay its eggs in and grows a Fusarium fungus, which the beetle larvae feed on. The Fusarium fungus disrupts water transport to the tree, resulting in branch dieback and eventually tree death. An infested tree can become hazardous and produce beetles that attack and kill surrounding susceptible trees, which then can become a fire hazard.

For more information on Invasive Shot-Hole Borers visit pshb.org or eskalenlab.ucr.edu

Literature Cited:
1. California Urban Forests Council. 2017 "Urban Trees are Under Attack!" accessed at https://caufc.org/project/urban-trees-are-under-attack/

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