

WOODLAND

Foundation maps city's largest valley oak trees

City's name sake trees number nearly 900 with 200 over 40 inches in diameter days

Democrat staff

Due to the ravages of time, development pressures, over-watering, agriculture and smaller planting spaces in new neighborhoods, the prevalence and visibility of Woodland's namesake tree, the valley oak, has diminished over the arc of history.

In 2018 the Woodland Tree Foundation counted 880 valley oaks over 12 inches in diameter throughout the city's 15 square miles.

However, Foundation members seeking more definitive data, recently used GIS mapping software, to learn the precise locations and attributes of Woodland's largest valley oaks with a diameter of at least 40 inches.

As a result, the Foundation has learned there are 200 trees of this size in the city. All can now be identified and located on the Foundation's website: woodlandtree.org.

These are Woodland's true heritage trees, many of which are as old as the town's American settlement in the 1850s, according to members of the Foundation.

"The largest oaks were likely in the city when Spain and then Mexico colonized California," according to the Foundation. "Some of these specimens are massive and breathtaking, five to seven feet in diameter, sprouting from acorns perhaps 300 to 400 years ago.

"They are literally Woodland's living landmarks with a lineage stretching back thousands of years, preceding Native American contact with the Sacramento Valley," stated Rolf Frankenbach, who along with David Wilkinson, mapped the oaks. "Com-

pared to historic estimates of oak density, trees of this age and size are comparatively rare in today's urban environment."

The oaks shown on the new map are a subset of Woodland's 880 oaks. The other 680 valley oaks the Foundation counted are younger.

"If they are allowed to grow to maturity, these trees will provide substantial environmental services for centuries to come, including cooling shade, food and habitat for native wildlife, and reduction of particulate air pollutants, Frankenbach noted.

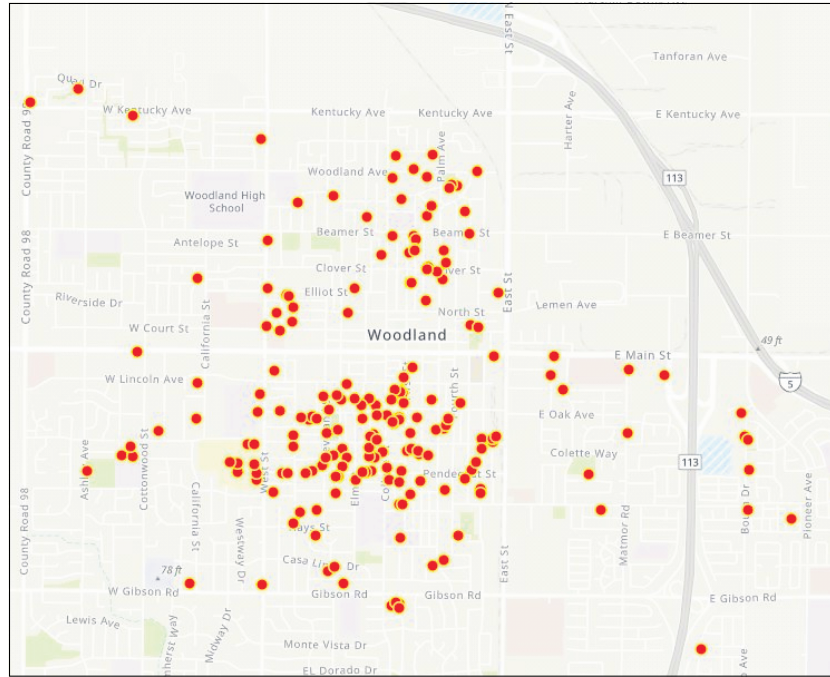
Woodland's largest oaks are invaluable environmental workhorses, the Foundation notes.

Based upon estimates derived from tree diameter and height, during their lives these 200 monarch oaks have collectively absorbed over 3,000 metric tons of carbon dioxide, into their woody fiber.

CO2 is the key greenhouse gas responsible for most human-caused global warming, noted Wilkinson. Over their lifetimes the oaks have removed from the atmosphere the equivalent of CO2 contained in 337,000 gallons of gasoline consumed, or the amount of CO2 emitted by 648 passenger vehicles driven 12,000 miles in a year.

Many of these big trees will live centuries longer with limited care and no applied water since they are adapted to Woodland's deep soils and hot dry summers to provide additional critical benefits, Wilkinson stated.

"Preserving Woodland's large and long-lived trees is very important," added Frankenbach. "Their copious



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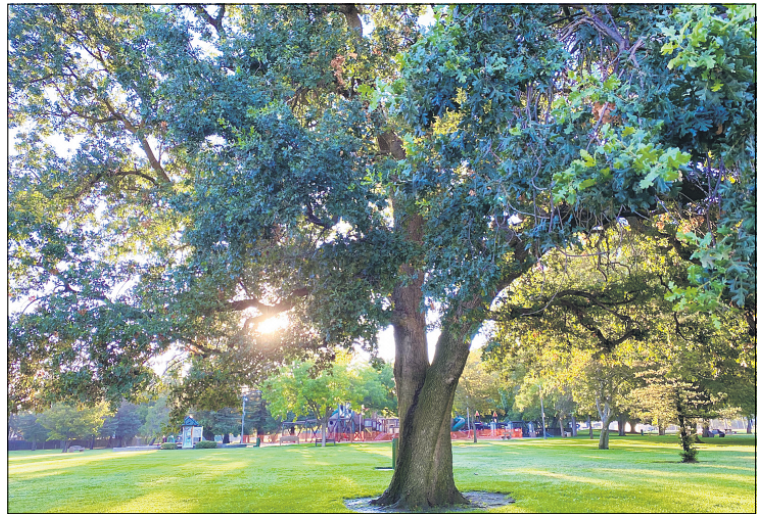
Left: This map created by the Woodland Tree Foundation represents Valley Oaks over 40 inches in diameter throughout woodland.

Below: A valley oak tree shines in the early morning at John Ferns Park. The tree is one of more than 200 in the city with a diameter of at least 40 inches that has been identified in a map created by the Woodland Tree Foundation. At least four such trees are located in the park.

leaves absorb large quantities of CO2, which is then stored or 'sequestered' in wood for centuries in their massive trunks and branches."

The Foundation is making resources available on its website to raise awareness of the value of conserving Woodland's large oaks while the younger trees mature to take their place.

"In addition to promoting the conservation and proper care of oaks, the Foundation is busy planting new oaks in Woodland open spaces and on State Highway 113 where during the last eighteen years over 1,000 trees, mostly valley oaks, have been established and continue to grow rapidly," according to Frankenbach.



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