



**CITY COUNCIL MEETING  
STAFF REPORT**

<b>Meeting Date: October 2, 2023</b>		<b>Subject: Update on Mediterranean Oak Borer (MOB)</b>	
		<b>Staff Member:</b> Georgia McAlister, Associate Planner	
		<b>Department:</b> Community Development	
<b>Action Required</b>		<b>Advisory Board/Commission Recommendation</b>	
<input type="checkbox"/> Motion <input type="checkbox"/> Public Hearing Date: <input type="checkbox"/> Ordinance 1 <sup>st</sup> Reading Date: <input type="checkbox"/> Ordinance 2 <sup>nd</sup> Reading Date: <input type="checkbox"/> Resolution <input type="checkbox"/> Information or Direction <input checked="" type="checkbox"/> Information Only <input type="checkbox"/> Council Direction <input type="checkbox"/> Consent Agenda		<input type="checkbox"/> Approval <input type="checkbox"/> Denial <input type="checkbox"/> None Forwarded <input checked="" type="checkbox"/> Not Applicable	
		<b>Comments:</b> N/A	
<b>Staff Recommendation:</b> N/A			
<b>Recommended Language for Motion:</b> N/A			
<b>Project / Issue Relates To:</b>			
<input type="checkbox"/> Council Goals/Priorities:	<input type="checkbox"/> Adopted Master Plan(s):	<input checked="" type="checkbox"/> Not Applicable	

**ISSUE BEFORE COUNCIL:**

Staff update on the presence of Mediterranean Oak Borer (*Xyleborus monographus*) in Oregon white oak (OWO) trees in Wilsonville.

## **EXECUTIVE SUMMARY:**

Since the summer of 2022, when it was first noticed that the large 56" DBH Oregon white oak (*Quercus garryana*) tree at ProGrass began to show rapid signs of decline, staff and arborists have hypothesized at what might be causing the decline. While insects, root disease and climate (heat, drought, ice) were all suspected culprits documented in the two detailed arborist reports that were prepared as part of the Willamette Water Supply Project (WWSP), there was no definitive diagnosis made that would explain the rapid decline of the main scaffold branches in this tree.

One consideration at the time in summer of 2022, was the fact that the Mediterranean Oak Borer (MOB) may be present, and actually causing some of the significant and rapid decline of this mature OWO tree due to the symptoms presented as well as evidence of insect damage. ODF staff observed evidence of insect damage caused by oak lace bug, gall-making insects, and other defoliating insects, and believed that the beetles were native ambrosia beetles that only attack dead and dying wood. At the time, ODF staff did not concur with the suggestion that the decline was the cause of the MOB and believed the decline was primarily caused by site conditions and drought stress. However, in May 2023, ODF published a FAQ sheet on the invasive beetle species and in June 2023 Oregon Department of Agriculture (ODA) published their own FAQ sheet. Both can be found in Attachments 1 and 2. Attachment 3 presents a scientific description of the insect and its preferences, prepared by Jeremy Slone, PhD, entomologist with Bartlett Tree Experts.

MOB has been detected in Oregon since 2018. One beetle was captured in a trap in 2018 at Chinook Landing near Troutdale. One beetle was captured in a trap near Woodburn in 2021. In 2022 across seven sites in four counties, there were 21 beetles captured, 14 of which were near Troutdale. Additionally in 2022, one beetle was found in a trap on the west side of Wilsonville. In May 2023, the first Oregon white oak tree was found to be positive for MOB near Troutdale. Now, in August of 2023, Wilsonville has the second confirmed OWO tree with MOB with evidence of much more infestation emerging daily.

Fast forward to the summer of 2023; staff and local arborists began to notice an alarmingly trend across the landscape of the Wilsonville community where very large OWO trees in numerous locations (Frog Pond West, Target store, ProGrass) began to show sudden and rapid large scaffold branch decline that was indicative of something potentially more serious. Because of the importance of these OWO trees and the potential presence of the MOB, staff prioritized looking into the matter further.

One suspected tree, located in Frog Pond West, declined very rapidly over the past year. This 55-inch OWO was to serve as the focal point of an open space in the neighborhood. However, based on major canopy dieback and branch decline, staff requested an arborist assessment. As a result of the arborist recommendation, an emergency tree removal permit had to be issued as the rapid decline of the tree left eminent danger to the public.

Prior to the actual removal, during the week of August 21, 2023, branch, leaf and insect samples were collected from parts of the declining tree by arborists from Bartlett Tree Experts

and sent to their laboratory in North Carolina. The following week verification came back from the samples that MOB was indeed present in the Frog Pond West tree samples. Since MOB is an invasive insect pest, the Oregon Department of Agriculture was immediately notified. A field meeting was held on September 8, 2023 where more samples were collected from the Frog Pond tree, as well as at the WES site along Barber and Kinsman Roads. Visual evidence was collected at the WES site indicating the presence of MOB in that grove. Observations of the Three Sister Oaks on September 12, 2023 by the City's consulting arborist indicated presence of MOB in the middle oak.

Staff at the City, along with the support of consulting arborists at Bartlett Tree Experts and Morgan Holen & Associates, LLC have already sprang into action to help to save our threatened oaks. Staff from Oregon Department of Agriculture and Oregon Department of Forestry are also providing support. To date there have been numerous coordination meetings and as of the last week of August, arborists were already applying insecticides and fungicides into the trunks of publically owned large Oregon white oak trees while coordination continues to occur with HOA's and private land owners.

#### **EXPECTED RESULTS:**

Below is an outline of what City staff is doing.

- Staff have prepared a comprehensive inventory of all large OWO community-wide and identified which ones are on private versus public property.
- Staff have a tree inventory that summarizes the size, health and condition of many of the oak trees in the city. Staff are updating that inventory with more current information.
- That inventory is being used as the basis to collect additional information about the current condition of the trees in 2023 and will result in the prioritization for treatment of the insect.
- Parks and Public Works Staff have collected drone and visual inspection data on all of the trees in the inventory and difficult to access natural areas not yet included in the inventory so that the prioritization process can take place.
- Prioritization of treatment will be determined based on the following criteria: significance to the City (heritage tree, historic significance, substantial investment in preservation, size), health, age, and potential risk if the tree fails.
- Staff has connected with the HOA's and private land owners of large Oregon white oaks. Outreach will occur to inform folks of the issues and seek partnerships to treat the MOB.
- Staff has also connected with the Metro science team responsible for managing Graham Oaks Nature Park to share our findings regarding MOB.

- Staff has coordinated with the School District staff to take the necessary steps that will result in treatment of the Cumberland heritage oak tree at Wilsonville High School.
- Staff continues to coordinate with Bartlett Tree Experts on a treatment plan. The most effective treatment involves the injection of systemic insecticide directly into the trunk of the tree that is either suspected to be infested or to protect against future infestation. To date, treatments have been completed for the WES grove on Kinsman, the Failmezger heritage oak on Parkway, two of the Three Sister Oak trees, the OWO preserved in the 5<sup>th</sup> to Kinsman project, the grove of oaks in Piccadilly Park in Villebois and the Target tree.
- Treatments would need to occur every two to three years. Fungicide treatment may also be used on infested trees that are high priority. Frequency of application and its effectiveness against the pathogen spread by the MOB is not known.
- This is the beginning of a long-term plan to help avert the catastrophic loss of our most treasured species, our precious Oregon white oak population.

**TIMELINE:**

Remediation actions are on-going.

**CURRENT YEAR BUDGET IMPACTS:**

Funds being used for treatments are coming from the Oregon white oak account, which is a CIP line item in the budget focused on various activities that promote healthy Oregon white oak populations such as planting, pruning, fertilization. An additional \$25,000 is being requested as part of the upcoming supplemental budget request.

**COMMUNITY INVOLVEMENT PROCESS:**

Staff are preparing a community wide outreach and educational campaign.

**POTENTIAL IMPACTS OR BENEFIT TO THE COMMUNITY:**

Loss of Oregon white oak across the Wilsonville community will be a significant negative impact.

**ALTERNATIVES:**

There are many alternatives, including doing nothing at all.

**CITY MANAGER COMMENT:**

**ATTACHMENTS:**

1. ODA FAQ sheet on MOB
2. ODF FAQ sheet on MOB
3. Report prepared by Jeremy Slone, PhD, Entomologist with Bartlett Tree Experts