

2022 Tree Health Assessment

The M-119 Tunnel of Trees Scenic Heritage Route Committee requested an inventory and assessment of the trees for the upcoming 2023 Report. This tree inventory & health assessment is specific to trees located within the M-119 State Highway Right of Way (ROW) and does not include trees outside the ROW.

Native Tree Species: Sugar Maple, Red Maple, American Beech, Eastern Hemlock, Ironwood, Red Oak, White Oak, Northern White Cedar, Red Pine, White Pine, Black Cherry, Basswood, Paper Birch, White Ash, American Elm, Balsam Fir, Quaking Aspen.

Non-Native Tree Species: Scotch Pine

OVERVIEW

The primary cover types consist of Oak/Maple, Northern Hardwood, Maple/Beech, Hemlock, and Hemlock/Cedar. The overall health of the trees is good for the area. Tree ages reflect a “climax community”, whereby most trees are at a mature age-with a small component of seedlings on the forest floor. There are mature long-lived species such as hemlock and white pine that are over 200 years old, with the average age of 60 years. The southern portion of the route has more homes with lawns that extend to the highway and the northern portion contains more of a natural landscape with the canopy of trees. Mature climax community trees are much more susceptible to disease and mortality than young trees. Due to the mature nature of the trees within the corridor-some have perished and should be removed. Some of the mature oak species along the corridor have dead limbs. This situation is known simply as oak decline. Oak decline is typically a slow acting disease—stemming from multiple biological and physical factors such as insects, drought, soil compaction, and just old age. Removing the dead limbs outside of oak wilt season is suggested.

Non-Native/Invasive Species

A stand of Scotch Pine is located about 3.5 miles south of Cross Village but are outside the right-of-way. If left unchecked, they could expand into the ROW, however, mowing will prevent any encroachment of Scotch Pine. Another invasive species to be wary of is Autumn Olive. Autumn Olive is an aggressive colonizing shrub, which when found should be removed-including the roots. If removal is problematic, it is recommended a licensed certified pesticide applicator treat the shrub stems with the appropriate herbicide after cutting them to 6 inches above ground surface.

Disease Concerns

The impacts of diseases are causing the canopy to become thinner, allowing slightly more sunlight to the surface, which promotes some seedling regeneration. Diseases also cause mortality resulting in an increased need for tree removals.

Beech Bark Disease

As mentioned in the 2017 assessment, Beech Bark disease is having an impact on the canopy in portions of the highway especially between Cross Village and Good Hart. Evidence of beech bark disease was again observed in 2022. Beech bark disease is identified by the presence of “scale”, which is a tiny insect like similar to aphids that feed on the sap of the beech tree. Scale is often white to grey in color. The scale infestation is a precursor to the fungus that causes beech bark disease and eventual death of the tree. The only effective method of control is using a specialized pesticide on healthy trees. Once started, pesticide applications must be continued until the disease is no longer present in the area.

Oak Wilt Disease

Oak trees are a major tree species along the entire corridor. Oak wilt is perhaps the biggest threat to the health of the trees in the Tunnel of Trees corridor. Fortunately, I did not witness any evidence of oak wilt during the 2022 assessment. Red oak is the dominant species with fewer white oaks in the area. Oak wilt is a fungus that can quickly kill the trees. The fungus can spread via root grafts, as well as by beetles that feed on the sap of wounded oak trees. The best defense against spreading oak wilt is to restrict all cutting or trimming of oaks between April 15th and July 15th, when various beetle species are active. The Michigan Department of Natural Resources (MDNR), Forest Health Unit has not verified oak wilt within the Tunnel of Trees area. This site provides a map, and current locations of verified oak wilt sites: <https://midnr.maps.arcgis.com/apps/webappviewer/index.html?id=aa4075c218ad4b968f15f14f84b37387>. Oak wilt is difficult to diagnose, and best determined by sending in small branch sample to an accredited University laboratory-such as Michigan State University.

Emerald Ash Borer

The Emerald Ash Borer has decimated the Ash tree component along the corridor. Fortunately, few ash are found within the forest, therefore the integrity of the Tunnel of Trees has not been significantly impacted by the decline of Ash trees.

Hemlock Woolly Adelgid

This small insect stresses the hemlock and if left unchecked overtime can kill the trees. At this time, no known Hemlock Woolly Adelgid has been identified in the corridor, however, the insect is moving North as our climate moderates. Annual monitoring for this pest should occur, and if found-appropriate pesticides applied by a licensed pesticide applicator can control the insect.

Replanting

When planting trees to replace others lost to damage or disease, it is best to choose a native species that will fit with the soils and hydrology at that specific location. Hardwood trees such as beech and ash can be replaced with maple, birch, or cherry. Conifers such as hemlock can be replaced with red pine, white pine, northern white cedar, or balsam fir.

Submitted by Todd Neiss North Region Resource Analyst, Michigan Department of Transportation.