



2017 Tree Health Assessment

The Tree Health Assessment for 2017 is specific to the trees located within the M-119 State Highway right-of-way (ROW) and not inclusive of trees outside of the right-of-way.

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: Austrian Pine, Autumn Olive

OVERVIEW

The major cover types consist of Oak/Maple, Northern Hardwood, Maple/Beech, Hemlock, and Hemlock/Cedar and the overall health is average for the area. The trees range in age from seedling (less than 1 year) to over 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. The views of Lake Michigan along the route are also an important consideration for tree health and it is recommended that any tree trimming be performed by certified arborists so that it is appropriately timed for the species as well as to limit impacts of disease.

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 have the ability expand into the ROW. Mowing of the ROW as it is currently, will continue to prevent the Scotch pine from encroaching into the ROW. The only other invasive species was Autumn Olive that can quickly overtake open areas. When it is found, it should be removed immediately including the roots if possible. Otherwise, it is recommended that the shrub be cut at the ground with an application of an herbicide to prevent sprouting.

Disease Concerns

The impacts of these diseases are causing the canopy to become thinner, allowing more light to the surface and an increase in small diameter trees.

Beech bark Disease

Beech bark disease is starting to have a moderate impact on the canopy in portions of the highway especially between Cross Village and Good Hart. Less than a half mile south of Cross Village, there are signs of beech bark disease on the American beech as evidenced by the high infestations of scale. The scale infestation is the precursor to the fungus that causes beech bark disease and eventual death of the tree. Many trees have already succumbed to the disease as evidenced by the number of dead standing, fallen and broken trees in the ROW. This disease will continue to be a management issue for the highway for years to come as more trees die. Beech

are prolific regenerators and many of these areas risk becoming beech brush if no action is taken. The concentration of beech between Cross Village and Good Hart intensifies the impact of this disease. The only effective method of control is using pesticides on healthy trees. Once started, pesticide applications must be continued until the disease is no longer present in the area.

Oak Wilt

Oak trees are a major tree species along the entire corridor. Both red and white oak are present with red oak being the dominant species. These trees will become a management problem in the future when infestations of oak wilt spread into the area. Oak wilt is a fungus that can quickly kill the trees. The fungus can spread to and infect adjacent trees through root grafts. The disease is also carried overland by beetles that feed on the sap of wounded oak trees. Left unchecked, the pattern of oak wilt continues on a yearly basis until the resource is destroyed. The only method of prevention is application of pesticide on individual trees until the disease is no longer in the area.

Emerald Ash Borer

The Emerald Ash Borer has had a moderate impact on the canopy but a major impact on the ash component. Most of the ash along the highway are dead or infected and in various states of decline. Since the ash trees are a small component of the overall tree composition, it is suggested that large individual trees that have died should be removed for safety reasons.

Hemlock Woolly Adelgid

This small insect stresses the hemlock and if left unchecked over time can kill the trees. There was a known infestation in the Harbor Springs area in 2006 and is expected to be eradicated from the area. Annual monitoring for this pest will be important and any infestations found should be controlled with pesticides. Guidance for disease and pest management can be found at <http://msue.anr.msu.edu/topic/info/forestry>.

Environmental Concerns

Many of the trees along M-119 have had objects nailed to them. This practice increases the potential for disease introduction.

Replanting

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

If oak wilt becomes established in the area, then a mixture of hardwood trees should be selected to replace those oaks. Oak may be replanted to replace trees taken out by individual events such as lightning strike or vehicle damage.