Background

The Emerald Ash Borer (EAB), *Agrilus planipennis* (Fairmaire), a destructive forest insect from Asia, was discovered in southeastern Michigan near Detroit in 2002. EAB probably arrived in the United States on solid wood packing material carried in cargo ships. Since its arrival, the invasive beetle has destroyed well over 100 million ash trees.

EAB overwinter as larvae under the bark of ash trees where they feed on the inner bark tissue, impeding the tree's ability to transport water and nutrients. Once ash trees are infested, they rapidly decline and are killed in 3-5 years. In fact, as the figure below illustrates, EAB ash mortality may well affect us for at least 15 years.

EAB threatens white, green, and black ash and has already had significant economic impacts on utilities and municipalities across much of the United States and Canada. There are no proven means to control EAB in forested areas, though individual trees can sometimes be treated.
EAB in Vermont

EAB is found in 35 states, and the Canadian provinces of Ontario, Quebec, New Brunswick, Nova Scotia and Manitoba. EAB was first identified in Orange, Vermont in February 2018. As of October 2018, EAB was confirmed in Orange, Washington, Caledonia, Grand Isle, and Bennington Counties.

The confirmed infested areas include 13 towns served by WEC. Infestation is suspected or considered high risk in an additional 11 towns served by WEC. Simply stated, the current infestation is in nearly 60% of WEC service territory; likely the highest percentage for any utility in the state and continues to expand.

WEC Preliminary Inventory

WEC preliminary inventory data show there are on average 10-20 ash trees per line mile (maximum count 100 trees per line mile) that endanger overhead lines. These are trees that lean toward utility lines and based on our analysis would damage infrastructure. These numbers do not represent the total number of ash trees near utility lines.
Mitigation Plan

Many utilities report ash trees infected by EAB snap like twigs at the root collar and damage infrastructure. Utilities from the Midwest to New York are committing to multi-year strategies that address EAB ash damage by proactively cutting trees before they are infected. Costs per tree to remove dead trees are reported to be 3 – 10 times higher than costs to remove living trees.

EAB creates extraordinary risk exposure to overhead utilities that cannot be addressed with the current vegetation plan and historic funding levels. Ash tree failures will increase, negatively affect reliability, and increase risk to line workers and the public.

WEC proposes a mitigation strategy to proactively remove ash trees that are likely to impact electrical facilities. The plan is outlined below:

1. Conduct inventory of Ash trees that threaten WEC overhead lines and facilities;
2. Prioritize the removal of Ash trees using a Top-Down strategy, targeting transmission, 3Ø distribution and main feeders;
3. Create a database for each substation that lays out Ash tree removal based on location of protective devices;
4. Request fixed unit pricing for tree removal from ROW contractors; and,
5. Schedule initial work for early 2019.

Current Precautions and Best Practices

EAB is in the heart of WEC territory. WEC is taking immediate steps to address line worker and contract tree crew safety. WEC also wants to limit the spread of EAB. Precautions and best practices to address these issues include, but are not limited to:

- Discuss dangers of EAB with contract tree crews. Do not climb an ash tree unless positively identified in the growing season to possess healthy canopy.
- Look overhead while in ROW for potential danger trees, particularly ash.
- Look for woodpecker activity and unusual bark loss on ash trees.
- Cut down danger ash within and outside of normal ROW, if possible, when power lines are down for other reasons.
- Cut and leave in place ash trees in the utility ROW.
- As needed, mechanically chip ash when WEC-designated danger trees are co-located within the utility and municipal ROW.