

Highway Maintenance Manual

Chapter 07 Roadside Management

Section 10 Woody Vegetation

Subject 20 Hazardous Trees

Bureau of Highway Maintenance

July 2015

1.0 Authority

<u>s. 86.03, Wis. Stats.</u>, Trees on and adjacent to highway places the responsibility for removing fallen trees on highway patrolman.

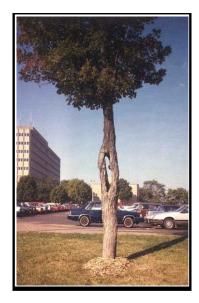
<u>ATCP 21.20</u> Plant Inspection and Pest Control. This is administrative rule of the Department of Agriculture, Trade and Consumer Protection. It regulates the movement of firewood from infested areas to non-infested areas whenever infestations occur in the state.

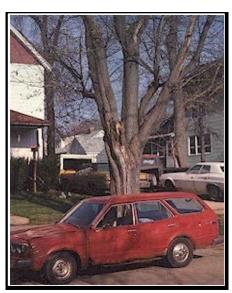
2.0 Introduction

Hazardous trees are trees, either dead or alive, with serious structural defects posing a safety risk due to the possibility they may break or fall on and damage a target. Targets are anything of value, including people, buildings, vehicles or other property. Targets may also include power lines or phone lines. Power lines present direct safety hazards. <u>Both</u> elements (the defective tree and the target) must be present for the tree to be classified as hazardous.

Where overhead lines are encountered the utility is responsible and must be notified for hazard tree removal. Regional utility permit coordinators can furnish contact information.

Defective trees not endangering people or property should be left in place to provide habitat for wildlife. Trees located on the roadside beyond the clear zone should be pruned or removed only if there is a reasonable chance the tree will fall onto the roadway or damage personal property on adjacent land.





Hazardous Tree and Targets Hazardous Tree and Target

3.0 Structural Defects

Aside from the tree being dead, some of the structural defects causing a tree to be come hazardous are:

 Cracks – Cracks may be caused by lightning, frost or poor branching structure and may lead to other problems.

July 2015 Page 1

- Decay Decay may be confined to the interior of the tree and may not be evident on the surface.
 Exterior signs of interior decay may be mushrooms over the root system or fungi on the trunk or branches.
- Dead branches The entire tree may not be hazardous but there may be large dead branches that could break and fall at any time.
- Leaning A tree leaning over a target at a 45-degree angle or more from the perpendicular, particularly
 if there is a mound of earth on the side of the tree opposite from the direction of lean. This would likely
 be caused from root upheaval and would indicate a lack of adequate anchorage by the root system



Deep crack and shelf fungi on a maple



Fungal fruiting body on silver hazardous tree.
Photo provided by the UW- Madison Extension
Plant Disease Diagnostics Clinic

4.0 Hazardous Tree Inspections

Maintenance personnel should regularly inspect for hazardous trees as they make their rounds, especially after violent wind or thunderstorms. Watch for structural defects, best observed during the dormant season, and general vigor, best observed when trees are in full leaf. Hazardous trees should be reported to the patrol superintendent along with a recommended course of action.

Hazardous tree inspections should also be completed prior to or at the beginning of projects entering into the six-year planning stage. Attempts should be made to remove hazardous trees prior to the design and public involvement stages of those projects.

When hazardous trees are encountered in urban areas where the department maintains the right of way, consider notifying the local municipality's urban forester. They may be able to provide detailed knowledge or an inventory of hazardous trees located along state and federal highways within their municipalities. If the location is covered by the local municipality's urban forestry plan, Form 1812, Application/Permit to Work on Highway Right-of-Way, may be issued to the municipality to remove the hazard.

5.0 Action Options

Action options include, but are not limited to:

- Remove the target. This is preferred, if possible and practical. It may be more economical to move the target than to move the tree.
- Block access to the area threatened by the tree. If it is determined the tree needs to be removed, this may
 also be used as an interim measure until removal of the tree can be scheduled, if the risk of injury to the
 public exists.

July 2015 Page 2

• Prune or remove the tree. Remedial measures such as cabling or bracing to help support the tree are not recommended unless the tree is a historic tree or has cultural significance.

6.0 Hazardous Tree Disposal

Dispose of hazardous trees in accordance with HMM 07-10-10, Woody Vegetation disposal, or HMM 07-10-15, Firewood.

7.0 References

Contact the Bureau of Highway Maintenance (BHM) landscape architects for help on identifying hazardous trees.

July 2015 Page 3