Outline

• Forest Service
• Hazard Importance
• Directives
• Desirable Components
• Challenges
### Fatalities

Table 1. Demographic information on deaths due to wind-related tree failures, 1995-2007.

<table>
<thead>
<tr>
<th></th>
<th>#</th>
<th>% male</th>
<th>median age</th>
<th>vehicle</th>
<th>outdoor</th>
<th>mobile home</th>
<th>house</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>407</td>
<td>62%</td>
<td>44</td>
<td>44%</td>
<td>38%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Thunderstorms</td>
<td>165</td>
<td>58%</td>
<td>39</td>
<td>47%</td>
<td>40%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Nonconvective</td>
<td>143</td>
<td>61%</td>
<td>45</td>
<td>50%</td>
<td>38%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Tropical cyclones</td>
<td>57</td>
<td>68%</td>
<td>45</td>
<td>34%</td>
<td>29%</td>
<td>18%</td>
<td>21%</td>
</tr>
<tr>
<td>Tornadoes</td>
<td>28</td>
<td>69%</td>
<td>52</td>
<td>32%</td>
<td>25%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Snow and ice</td>
<td>14</td>
<td>79%</td>
<td>69</td>
<td>21%</td>
<td>71%</td>
<td>0%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Fig. 1. Map of deaths from wind-related tree failures, by county, for 1995-2007.

Nat.Hazards. (50) 1: 13-25
The 7 Deadly Defects

- Dead Trees and Branches
- Cracks
- Weak Branch Unions
- Decay
- Cankers
- Root Problems
- Poor Tree Architecture
Abbreviations

- FSM 7733 – FS Manual
- FSH 7709.59 – FS Handbook
- OSHA
- NFS – National Forest System
- OGC – Office of General Council
FS Engineering

- FSH 7709.59, Chp. 40 (Revision)
- Multiple Units within FS
- Finalized Feb 2009 but…
- OGC review early 2010
- On it’s way to WO Directives
## Table of Contents

40.1 – Authority ........................................................................................................... 2
40.2 – Objective ......................................................................................................... 2
40.4 – Responsibility ................................................................................................ 3
  40.4a – Regional Foresters ..................................................................................... 3
  40.4b – Forest Supervisors ..................................................................................... 3
40.5 – Definitions ...................................................................................................... 3

41 – HIGHWAY SAFETY PROGRAM COMPONENTS .................................................. 4
  41.1 – Traffic Engineering Services ...................................................................... 4
  41.2 – Identification, Investigation, and Surveillance of Accident Locations .......... 4
  41.3 – Design and Construction ............................................................................. 4
  41.4 – Roadside Design ......................................................................................... 5
  41.5 – Highway-Rail Grade Crossings ................................................................... 5
  41.6 – Roadway Maintenance ................................................................................ 5
  41.7 – Hazard Identification and Correction .......................................................... 5
  41.8 – Incident Management ................................................................................ 7
  41.9 – Forest Service Employees and Forest Service-Owned Equipment ............. 7
The Forest Service works with the Federal Highway Administration under the authority of the Highway Safety Act of 1966 (P.L. 89-564) to make travel on National Forest System roads as safe as practicable.

40.1 - Authority

1. The Highway Safety Act of 1966 (P.L. 89-564) established a national highway safety program directed by the Secretary of Transportation. The act authorized the Secretary of Transportation to make arrangements with other Federal departments and agencies for assistance in the preparation of uniform guidelines for the highway safety programs and in the administration of such programs.

2. Title 23, Code of Federal Regulations, Part 655, subpart F, section 655.603 makes the Manual on Uniform Traffic Control Devices (MUTCD) the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel and specifically approves the MUTCD for use in federally administered areas where a Federal department or agency controls the highway or supervises the traffic operations.


4. Title 36, Code of Federal Regulations, section 212. subpart B, section 212.52 requires responsible officials to immediately close National Forest System roads when officials determine that motor vehicle use on roads will cause immediate adverse impacts on public safety.
40.2 - Objective

See FSM 7733.02 for general objectives of the safety provisions on National Forest System roads.

40.3 - Policy

1. Safety is the predominant consideration in road operation and maintenance and takes priority over biological or other considerations.

2. Roadways must be managed for safe passage by road users. This includes management of hazards associated with roadside vegetation, including identification and mitigation of danger trees.

3. Identification of danger trees must be performed by qualified persons.

4. When high priority hazards to road users are identified on National Forest System roads and those hazards cannot be immediately mitigated, the roads must be closed.
40.4 - Responsibility

FSM 7733.04 assigns responsibilities for safety measures on National Forest System (NFS) roads. This includes specific forest supervisor responsibilities for identification of aspects of NFS roads which are potentially high hazard, developing prioritized corrective measures for identified hazards, eliminating hazards to the extent permitted by funding levels, and providing for trained personnel to make periodic road safety inspections.

40.4a - Regional Forester

It is the responsibility of regional foresters:

1. To provide regional guidance regarding identification and prioritization of danger trees.

2. To provide technical assistance to national forest staffs regarding danger tree evaluation.

40.4b - Forest Supervisor

It is the responsibility of forest supervisors:

1. To ensure that a qualified person is available to assess danger trees along NFS roads and to recommend mitigation for hazards associated with trees so identified.

2. To ensure that road segments identified as having high priority danger trees are closed to public use until hazards are mitigated.
40.5 - Definitions

For the purpose of this section, the following terms are synonymous:

1. Danger tree.

2. Hazard tree (previously used terminology).

**Danger Tree.** A standing tree that presents a hazard to people due to conditions such as, but not limited to, deterioration or physical damage to the root system, trunk, stem, or limbs and the direction or lean of the tree (FSH 6709.11, Glossary).

**Qualified Person.** A person who has knowledge, training, and experience in identifying danger trees.
41.7 - Hazard Identification and Correction

1. General.

Analyze road features and traffic operations that have caused or have the potential to cause accidents as part of planning and programming for road development and maintenance projects and as part of periodic condition surveys.

On low-volume roads, crash history is seldom a reliable indicator of significant safety problems. Making comparative analyses between hazardous sites also may be difficult because of the infrequency of accidents. Accordingly, use common sense and judgment to determine safety deficiencies and the priority for corrective action. Accident rate comparison formulas commonly used for high-volume highways are not appropriate.

Roads that are open should have a condition survey at least annually. Roads that have been closed should be checked for obvious hazards prior to being opened. Roads open to travel should also be checked following major storms or similar events that could significantly affect their condition, result in changes in their traffic service level, or have created new safety hazards.
Establish processes for road users, both administrative and public, to report road hazards. Reports of unsafe conditions should be promptly investigated.

2. **Danger Trees.**

   a. Danger tree hazards on roads will be prioritized by high, medium, and low categories.

   b. Roads or segments thereof identified as high priority constitute a considerable adverse effect on public safety (36 CFR 212.52 (b) (2)) and thus require prompt action. The level of exposure is time-critical. Action must not be delayed to accommodate commercial removal of trees. Acceptable actions are:

      (1) Mitigate danger trees which have been determined as likely upon failure to fall on or roll into the traveled way. Schedule work to eliminate danger trees in the areas of highest exposure first.

      (2) Close the road segment if the hazards cannot be mitigated. (sec. 40.4)

   c. Roads identified as medium to low priority are not considered time critical. Strategies utilizing the sale of forest products, including commercial timber sales and land stewardship contracts, may be employed to mitigate roadside danger trees along these roads.

   d. The priority of danger tree hazards may increase as trees deteriorate with time.
Correspondence (cont.)

(1) Road segments identified as having low and medium priority danger tree hazard should be monitored for increases in hazard due to ongoing tree deterioration.

(2) When a road segment moves from medium to high priority status, prompt action shall be taken as described in this section.

(3) In situations where road segments do not currently have high priority tree hazards, may be predicted to have such hazards resulting from ongoing tree deterioration at a future point in time, and strategies utilizing the sale of forest products are being employed to mitigate the hazards before they become high priority, include a determination by a qualified individual of the date when high priority hazards are likely to occur in the project file. Planning of sales must be accomplished in a manner that will result in tree hazard mitigation by the identified date.

e. Procedures for environmental analysis and decision making regarding danger trees.
(1) Road maintenance, including treatment of danger trees, may be categorically excluded from analysis and documentation in an environmental assessment or environmental impact statement under certain circumstances. See FSH 1909.15, chapter 30 for guidance concerning categorical exclusions and specifically section 31.12(4).

(2) When preparing documentation for projects where a qualified individual has identified that tree hazards will reach high priority status by a future point in time, clearly display the determination in the publicly available project file as well as the policy requirement that roads with high priority safety hazards must be closed to public traffic (sec. 40.4).

f. Consider all available methods for mitigation and treatment of danger trees and apply them as appropriate to local situations. These methods include, but are not limited to, commercial timber sales, land stewardship contracts, burned area emergency rehabilitation funding, personal use firewood sales, and appropriated funds.

g. When mitigation and treatment of danger trees are a significant impact on a forest’s annual program of road maintenance work, include specific references to the resources needed for ongoing danger tree mitigation in the annual road maintenance plan. (FSM 7732.11)
Powerful Nor'easter causes extensive damage around New Jersey

Published: Saturday, March 18, 2017, 10:47 PM - Updated: Saturday, March 18, 2017, 11:48 PM

Julie O'Connor/The Star-Ledger

Heavy winds and rain have wreaked havoc with an adorned trees and power lines all around the state. (Julie O'Connor/The Star-Ledger)

Illegal tree cutting late at night is making Highway 26 dangerous to travel

By Jim Hart
The San Diego Union-Tribune

Illegal tree cutting late at night is making Highway 26 dangerous to travel.

During the past few weeks, unknown suspects have been cutting trees along Highway 26 in the Cherryville area, east of Sandy. The wannabe loggers are causing the trees to either fall onto Highway 26 or onto power lines.

Forest ecologists trying to prevent the expansion of roads on public lands say in a new report that removing beetle-killed trees is unnecessary, except near mountain communities.

The report said that clearing "defensible spaces" within 150 feet of the backcountry would do little good.

Officials warn visitors to watch for falling trees

An early snowstorm in Texas led to a rise in travel-related accidents. The National Highway Traffic Safety Administration said the year-over-year increase in traffic deaths was the biggest in the past 16 years. The agency said the number of traffic deaths in Texas rose 38%. An early snowstorm in Texas led to a rise in travel-related accidents. The National Highway Traffic Safety Administration said the year-over-year increase in traffic deaths was the biggest in the past 16 years.
Thank you FHP from John Bell

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Web info:


http://www.fs.fed.us/im/directives/fsh/7709.59/7709.59_40.doc
Questions???