



## U.S.D.A. FOREST SERVICE PACIFIC NORTHWEST REGION (R6)



### Phoenix Fire Swamper Incident Facilitated Learning Analysis (FLA)



**Narrative:** The work assignment for the day was to continue preparation of a control line along Forest Service road (2308) for the management of the Phoenix Fire in Crater Lake National Park. Fire crews from both the Fremont-Winema and the Umpqua National Forests were working together brushing the burn side of the road using chainsaws and handtools.

During the brushing operation, a dead snag, 12-14 dbh, was identified as a potential control issue. It was leaning against a green tree, which limited the feller's ability to fell it as desired. An Umpqua fire crew member volunteered to fell the tree. During the felling operation, a Fremont-Winema fire crew member was asked to retrieve a wedge, assist by driving the wedge, and to act as a swamper.

During one of the swings to drive the wedge, the axe hit the edge of wedge which was bottomed out (wedge striking the trees holding wood) and bounced back. The resulting rebound struck the swamper's left patella with the toe of the blade. The resulting injury was a deep tissue wound of 1.5 inches, requiring eight sutures.

#### Sequence of Events:

- The daily Phoenix Fire morning briefing was conducted as well as Division breakout sessions to address daily assignments and safety.
- Engine crews from the Fremont-Winema and Umpqua NF arrived on site.
- During brushing operations a snag was identified that jeopardized control issues and the decision was made to fell the tree.
- Swamper was given permission to assist the sawyer in order to gain more experience. A hazard assessment was not shared with swamper.



**U.S.D.A. FOREST SERVICE  
PACIFIC NORTHWEST REGION (R6)**



**Rollover Incident  
Facilitated Learning Analysis (FLA)**

**Sequence of Events Continued:**

- Swamper was asked to retrieve a wedge and drive into the tree.
- Swamper struck the edge of the wedge, which was bottomed out (wedge striking the trees holding wood) causing the axe head to rebound back striking the swamper, who was not wearing chaps.
- Sawyer also tried to drive the wedge.
- Swamper realizing he had been injured received prompt medical attention on scene before being transported to a hospital where he received sutures.
- After Action Review was conducted in the field the next day.

**Type of review:** Facilitated Learning Analysis

**Lessons Learned - Participants:**

- 1) Swamper or any personnel working in close proximity to a chainsaw should wear full PPE including chainsaw chaps.
- 2) Work more slowly. Practice Situational Awareness as speedy brushing was not necessary because the control line was a contingency line away from the main fire.
- 3) Additional training in:
  - a) Use of wedges and wedging as a tool
  - b) Use of hand axes for wedging or limbing.
  - c) Proper stance and orientation to the tree when wedging. Lining oneself up at a 90 degrees angle to the tree before driving the wedge.
- 4) Chainsaw operator share hazard assessment with swamper thru open communication before they engage.
- 5) Consider the experience levels of sawyer and swamper who may be working together for the first time.
- 6) Sawyer operating the chainsaw also does any wedging necessary.

**Lessons Learned - Manager:**

- 1) An expedited FLA is not necessary nor desired if all involved parties are not available.
- 2) When conducting an FLA with more than one unit (e.g. Forest, Agency, District) involved ensure key parties from all units are available.
- 3) Document the After Action Review (AAR) conducted in the field.



**U.S.D.A. FOREST SERVICE  
PACIFIC NORTHWEST REGION (R6)**



**Rollover Incident  
Facilitated Learning Analysis (FLA)**

**Lessons Learned – Facilitator:**

- 1) Better understanding of FLA process for managers.
- 2) Additional training on:
  - a) Personal protective equipment (PPE)
  - b) Hand tools
  - c) Rolls of Sawyers and Swampers
  - d) Maintaining high levels of expertise within the Forest Service for skill in chainsaw operations and wedging.