Safety Lessons Learned—Effects of Fatigue and Sleep Debt

"Lessons Learned" is a proven method of sharing important safety messages. Based upon reallife incidents, Lessons Learned examines root causes of why an accident or injury happened and identifies corrective actions or mitigation to reduce the chance of future accidents. Lessons Learned does not identify people by name, nor is it finger-pointing or a way to place blame. It is an honest assessment of a chain of events that helps us find proactive ways to keep us all safer, healthier, and out on the Trail.

The Activity: A volunteer was participating at a chapter work event on a day when temperatures were in the high 80's with humidity. He mentioned to the chapter leader that he hadn't been sleeping well lately. The night before the work event he reports that he only got about 4 or 5 hours of interrupted sleep, less than is normal for him.

What Happened: The work event lasted from about 9:00 AM until early afternoon, when the crew took a lunch break at a local eatery. Following lunch, the volunteer had one final task for the day—trailer the chapter's "Billy Goat" mower from the trailhead back to a storage facility about 10 miles distant. Along the way, the volunteer fell asleep at the wheel and left the roadway with trailer in tow. His truck launched over an embankment adjacent to a private driveway, causing damage to his personal pickup truck (which needed to be towed), and the chapter's trailer and mower. The mower had also come free from it's tie-downs and was a loose object which contributed to the trailer's damage. The volunteer was not injured. Local law enforcement responded to the accident.

The Lessons Learned:

- Luckily, no other oncoming traffic was involved in the accident, and the volunteer's vehicle did not drive head on into a substantial object like a tree. This Lesson Learned came very close to having a catastrophic ending, possibly involving innocent others.
- Fatigue is a significant factor in this accident. Fatigue can be brought on by lack of sleep, hard work, the impacts of extreme temperatures, after a meal, and by performing monotonous tasks such as driving. All these things probably played a role in this Lesson Learned.
- Sometimes we need to admit that we may not be up to a certain task just because we aren't able to fully function at that moment due to fatigue—especially when it comes to operating a vehicle on a public roadway. If our ability to recognize that in ourselves is also being impacted by our own fatigue, we need others to bring it to our attention and find another person to relieve us, or another way of getting the job done. Let's be sure to use the "buddy system" and watch out for each other.
- Lesson #5 of *Trail Safe!* (Stress & Performance) deals extensively with Fatigue and how we can mathematically calculate our body's ability to function when we are

experiencing long workdays and the cumulative effects of "Sleep Debt." Please review that lesson and see how, when we haven't had good sleep for a night or two, our fatigue level gives us the cognitive ability of a person who, by comparison, would have a blood alcohol concentration (BAC) of someone legally impaired.

The impacts of heat and monotonous tasks only compound the "Workday Calculation," as would the contributing factors of any actual alcohol or drug (including certain Rx prescriptions) in the system if that were the case. Many little things can add up to us being too fatigued for the job at hand.

Thank you to everyone for not only building and caring for the Ice Age National Scenic Trail, but for also working together to keep each other safe and healthy along the way. Be Trail Safe!