Half Dome Trail Stewardship Plan: Safety Issues

Half Dome is an iconic, granite dome rising 5,000 feet above the Valley floor in one dramatic sweep of sheer rock. Since its first ascent in 1875, the climb to Half Dome's peak has become a major draw for park visitors. Studies conducted in 2008 observed that Saturday and holiday use averaged more than 800 hikers per day with peak numbers from 1100–1200 hikers. One of the purposes of this plan is to improve public safety by reducing crowding on the Half Dome Trail.

Effects of High Use Levels on Safety

Most of the major documented accidents on the Half Dome cables occurred when the rock was wet or icy. Even during days that start out as dry, rapidly moving summer storms can bring rain, hail, or snow to Half Dome and quickly change conditions. High use levels result in delays in accessing the cables and longer ascent and descent times on the cables.

This increased time to ascend and descend the cables:

- Causes people to spend more time on the cables, exposing them to increased fatigue as they hold themselves in place while waiting out the delays. On days with inclement weather, the danger of longer times spent on the cables increases exposure to the elements (rain, lightning, hail, wind, cold etc.,) as well as the slippery rock surface and cold, wet cables.
- Makes it more difficult for hikers to manage their own risk when they see approaching storms and try to descend to avoid the storm but are unable to do so in a timely manner because of crowding.
- Makes a scenario more likely where many people, unable to descend because of delays, could be stranded on the summit and/or cables causing prolonged exposure to dangerous weather conditions. Results of modeling scenarios in a 2011 study showed that descent from the summit during periods of peak unregulated use could cause 45-minute delays for people on the summit attempting to access the cables, resulting in a total descent time of 83 minutes.

In 2009, during a rainstorm on a busy Saturday, one person was killed and 41 other hikers were rescued from the cables by NPS search and rescue personnel. Rescues in this type of environment, requiring rapid access via helicopter in inclement weather present a risk to park rescue personnel.

Improving Opportunities for Safe Decision-making

National Park Service (NPS) policy states that "Park visitors must assume a substantial degree of risk and responsibility for their own safety when visiting areas that are managed and maintained as natural, cultural, or recreational environments." Crowding can prevent hikers from using the cable system at their own chosen speed, particularly when trying to avoid approaching storms. To provide the best opportunity for hikers to manage their own risk on the cables, the NPS would attempt to achieve consistent free-flowing conditions (defined by a lack of queuing or congestion). The number of people at one time (PAOT) on the cables is the best indicator of free-flowing conditions under normal circumstances, and both PAOT on the cables and the summit are used to predict evacuation times in storm events. There is a strong correlation between PAOT on the cables and summit and total daily use. Only those alternatives that provided reasonable free-flowing conditions were considered.

How can I get involved?

- Visit online: www.nps.gov/yose/parkmgmt/planning.htm
- Attend Public Open Houses on the last Wednesday of each month from 1 p.m. to 4 p.m. at the Visitor Center Auditorium in Yosemite Valley. Park entrance fees are waived for visitors who attend the Public Open Houses.
- Submit your email address to receive the park's periodic electronic newsletter yose_planning@nps.gov
- Provide input during the planning process. You can submit comments by visiting the National Park Service's Planning, Environment and Public Comment (PEPC) project page at http://parkplanning.nps.gov /halfdome Or send regular mail to:
- Mail: Superintendent Attn: Half Dome EA P.O. Box 577 Yosemite, CA 95389
  Fax: 209/379-1294
- Phone: 209/379-1369