

CORRIDOR VISITOR USE REPORT

AUGUST 2013

PURPOSE

The purpose of this report is to document and communicate what visitor use conditions in Grand National Park’s corridor zone *currently are*, and compare them to visitor perceptions of what desired conditions *should be*.

PRELIMINARY RESULTS – SOUTH KAIBAB TRAIL

Over 150 surveys were administered along the South Kaibab Trail during May, 2013. The survey instrument measured a number of items related to visitor experience, including visitor perceptions of quality related to crowding. For instance, visitors were asked to rate how acceptable a range of scenarios might be while traveling along the South Kaibab Trail from Tipoff to Black Bridge. Each scenario described different numbers of visitors encountered while traveling along the trail, and survey respondents rated the acceptability of each scenario on a scale bounded by -3 (*very unacceptable*) to +3 (*very acceptable*). Average acceptability ratings for each scenario presented to respondents were calculated and plotted along a social norm curve (see Figure 1).

As illustrated in Figure 1, conditions become unacceptable when visitors encounter 60 or more other visitors while traveling from Tipoff to Black Bridge. Moreover, they would prefer to experience closer to 15 encounters. So, how does this compare to conditions that visitors experienced during the study period?

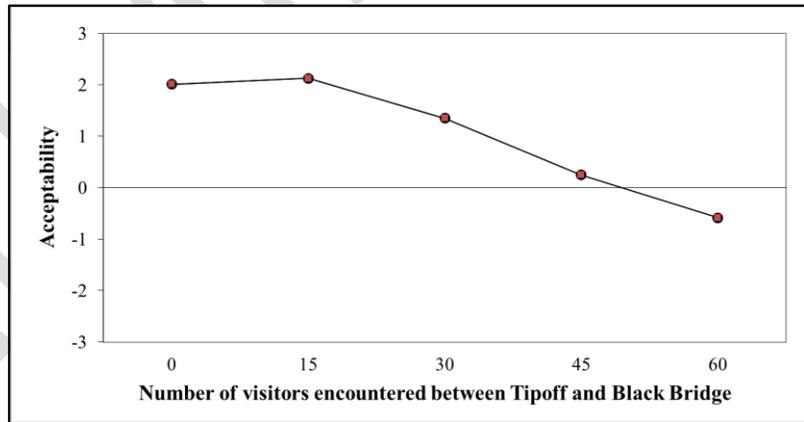


Figure 1: Social norm curve for encounter rates along South Kaibab Trail

Over 40 monitoring forms were completed by park staff to establish encounter rates between Tipoff and Black Bridge during the study period. Monitoring forms included information such as dates, times, and numbers of other visitors encountered while hiking the trail segment. Data from the monitoring forms is summarized in Table 1.

Minimum # of encounters	Maximum # of encounters	Average Mon-Thurs	Average Fri-Sun	Observations of 60+	Observations of 15+
0	143	12	38	3	19

Table 1: Summary of encounter rate data from monitoring forms (n = 44)

DISCUSSION OF PRELIMINARY RESULTS

As noted above, visitors find that encountering 60 or more other visitors while traveling from Tipoff to Black Bridge is unacceptable. These conditions were experienced three times during the study period as documented by park staff via monitoring forms. Furthermore, two of these occasions occurred on Saturdays, and this is in keeping with high use trends as noted by trail counter data (see Figure 2). For more information regarding data collected by trail counters see the December 2012 Corridor Visitor Use Report.

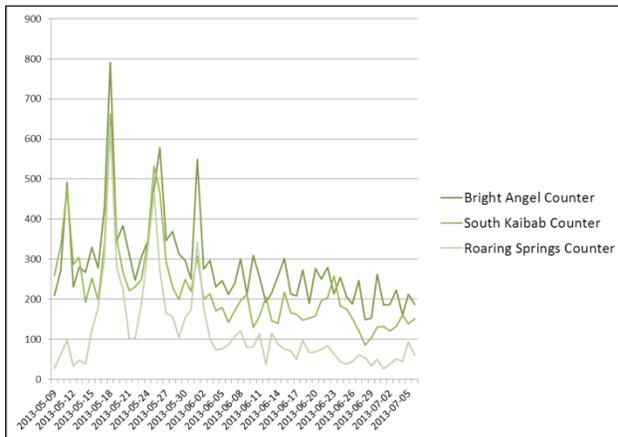


Figure 2: Total daily visitor use counts

POTENTIAL MANAGEMENT ACTIONS

Grand Canyon’s General Management Plan states that “an active monitoring program, along with indicators and standards, will be established to determine carrying capacities for visitors...on the corridor trails.” In addition, it notes that “measures may be taken under the Backcountry Management Plan if carrying capacities are exceeded” (National Park Service 1995, pg. 58). Therefore, do unacceptable conditions experienced by visitors warrant management action, and if so, what action/s would be most appropriate?

The questionnaire administered also measured visitor attitudes toward a range of potential management actions. For instance, it asked respondents to indicate the extent to which they would support or oppose permits with limits and fees, limits on group size, and more education regarding trail etiquette. Results from these questions are illustrated in Figure 3.

It is clear that visitors support more education regarding trail etiquette above other management actions (see Figure 3). Furthermore, implementation of an education program may be more feasible from an administrative standpoint. It should be noted that education alone may not resolve capacity related issues in the corridor, but it may improve issues surrounding conflict among users and help communicate realistic expectations to visitors. Careful consideration should be given to what an education campaign may include, and its efficacy should be measured in the future.

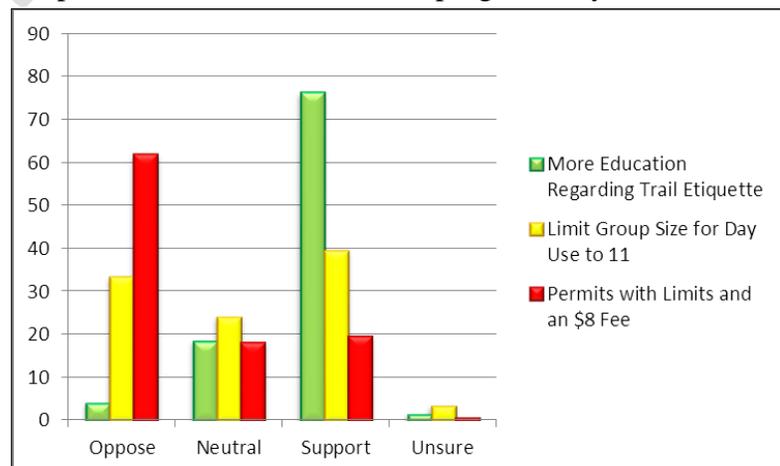


Figure 3: Visitor attitudes toward management actions (% oppose/support)