Video Monitoring Visitors as a Management Tool: Identifying the Issues

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One consequence of providing for recreational use of parks, forests, and open space is the negative impact of such use on the resource (Watson, Cole, Turner, & Reynolds, 2000). In order to develop strategies to mitigate negative consequences associated with use, managers must be able to quantify the types and amount of use that occur. Typically, managers will begin to estimate use through counts of visitors at developed sites, such as information centers or campgrounds, where staff can make the counts during their normal work routine (Hornback & Eagles, 1999). With experience these managers then identify the limits to this type of data gathering (some visitors will not go to either the campground or the information centers, while others will make several trips to the information center during one visit) and seek more sophisticated means of estimating the number of visitors to an area.

The most common means of non-intrusive measurement are through the utilization of mechanical traffic counters which tally visitors through the use of infrared beams, sensor plates, or loops which trigger a counter. Although these types of counters can be very accurate when properly calibrated, the calibration process can be time consuming and expensive. Even when properly installed, mechanical traffic counters provide no indication as to the approximate age of the participants, the size of the group, or the type of activities in which visitors are engaged.

In an effort to gather more accurate and more detailed information researchers linked mechanical counters to cameras so that an image would be recorded each time the counter was triggered. Due not only to the costs of equipment, but also due to functionality issues which have yet to be resolved, such as limited storage space for images, power supply, camera installation, and data analysis, this type of system is not in widespread use. Alternatively, some researchers have mounted cameras with a dedicated power supply which have been allowed to run continuously to monitor all use on a given segment of trail. In those cases analyzing the vast amount of data recorded can be challenging.

With the dramatic pace of technological development, new solutions to monitoring visitor use are on the horizon. This session will address recent technological advances in video monitoring as well as identify the needs of researchers interested in conducting studies employing this data gathering methodology.

REFERENCES

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