

Trail Monitors: New Tools for Healthy Communities

Installing Trail Monitors is a First Step in Increasing Community Trail Use and Physical Activity

BY Christopher J. Seeger, ASLA

Iowa State University Extension Landscape Architect

Given that walking, running and biking are among the simplest forms of physical activity an individual can participate in, many communities are working to increase the health of their citizens by developing new trails and promoting the use of existing trails. While these efforts are a step in the right direction, it is often useful to know what the most popular trails are in the community, what time of day the trails are most used and which trails are underutilized so that informed decisions can be made regarding future infrastructure improvements and promotional programs.

To help answer these questions, communities can install infrared trail monitors to count the number of trail users. The trail counter monitors work much the same as the safety sensor on an electric garage door opener by sensing when the infrared beam between a transmitter and corresponding receiver is broken. When the beam is broken, the time of the event is recorded to the monitor's memory. The collected information can later be downloaded to a computer where it can be reviewed and analyzed. The trail data can also be added to a geographic information system (GIS) to reveal how the connectedness, proximity and overall location of the trail may impact the trails use.

When multiple counter monitors are installed along several trails throughout the community (or at intervals along a single trail), comparisons can be made regarding the popularity of the trails, or segments of a particular trail, over a specified period of time. The data can also be combined with information about the characteristics of the trail, the adjacent landscape/land use and neighborhood demographics to better understand what impact the built and social environments may have on trail use.

A pilot project demonstrating the use of trail monitors was conducted in November 2006 and March



2007 by Iowa State University. In both of the trials, Active Infrared Trail Monitors (see Photo 1) were installed to count the number of trail users. Results from the Ames study (Table 1) showed that the Ada Hayden Park trails were the most popular during the second week of March 2007. Results from three weeks of data (Graphs 1 and 2) for Ada Hayden Park and Brookside Park clearly show the effect of weather (snow) on the first week of trail use and an overall increase in use when changing to Daylight Savings Time.

Through the use of trail monitors combined with other data, it is possible to evaluate why some trails are more popular than others and to develop strategies for increasing physical activity through increased trail use. If you are interested in learning more about trail counting monitors or installing trail monitors in your community, please contact Chris Seeger, ISU Extension Landscape Architect, cjseeger@iastate.edu, or go to the ISU Extension Program Builder Web site: <http://www.extension.iastate.edu/programbuilder/>. 