Temperature (T)

Most people become disinterested in outdoor recreation when the temperature is uncomfortably hot. Therefore, it is hypothesized that as the maximum daily temperature increases, the number of visits to the river basin will decrease.

It was impossible to attain an accurate reading at each lake. The intention was to derive an average of the highest daily temperature at each lake by considering the highest daily temperature at each access point of the lake. The only data available concerning daily temperature was obtained from the U.S. Department of Commerce — National Oceanic and Atmospheric Administration. The nearest location for gathering the highest daily temperature readings for Lake Gentry and Lake Tohopekaliga was at the Kissimmee Climatological Station; while for Lake Marian, the nearest was the Indian Lake Estates Climatological Station [5]. It was assumed that maximum daily temperature readings were the only readings that would influence recreational usage of the river basin. The other extreme point, the lowest daily temperature, was not considered relevant due to the general climate in this part of Florida and the type of recreational activities predominating in the area.

Rainfall (R_a)

In most cases, rainfall has an influence on outdoor recreational activities. As rainfall increases, outdoor activities along the shoreline and on the lake are dampened, with only a few "enthusiastic" recreationists engaging in activities. Such recreational activities as picnicking and sports are usually disrupted by thunderstorms. Thus, it was hypothesized that as the amount of rainfall increases, the number of visits to the Kissimmee River Basin will decrease.

Initially, a measurement of rainfall at each individual sampled lake was desired. Instead, a daily rainfall count at the nearest lock, for each sampled lake, was the measurement obtainable. For Lake Gentry, it was lock S-63; Lake Tohopekaliga, lock S-61; and Lake Marian, lock S-65 [5]. The procedure to account for rainfall entailed measuring rainfall in inches per day during each time period, at each of the three locks. Note that in the Kissimmee River Basin, rainfall occurs most frequently during seasons I and II but not for long durations. The water level data and all rainfall data were collected at the same locations.