

General Information: Approximately 60 percent of the surface area of Lake Killarney lies within Winter Park. The remainder is in unincorporated Orange County, and management efforts are split between the county and the city. Water levels in the lake appear to be dependent on groundwater levels, but there may be undocumented, small magnitude springs in the lake. The water level in the lake does not fluctuate drastically during droughts, as other lakes in the area do. High water levels are controlled by two drainage wells on the south side of the lake. During large storm events, an outfall structure located in a cove off of the north side of the lake will convey water through pipes to Lake Gem, in Maitland. From there the water flows through open channels to Park Lake and then to Lake Maitland.

<u>Water Quality:</u> Water quality in Lake Killarney is primarily affected by stormwater runoff. Trend analysis of annual average Secchi disk transparency data from 1998 through 2015 shows a slight trend toward improving water clarity.

Management Efforts: Ten of 13 stormwater outfalls on Winter Park side of Lake Killarney have leaf/debris traps to reduce the amount of organic material and sediments entering the lake. Two of the three large outfalls to the lake have additional treatment systems installed. The Gay Road outfall has a large baffle box structure to remove sediments, and the City of Winter Park completed a stormwater project that directs, dirty, first flush runoff water from a section of 17-92 into the ponds at Lake Island Park. This water previously ran, untreated, into Lake Killarney through the Beachview Avenue outfall. Winter Park is currently working with Orange County to design a treatment system in the area around Minnesota Avenue and Clay Street that will provide treatment for a large commercial area that drains to Lake Killarney through an outfall at the end of Shoreview Avenue. A nutrient loading study was recently completed and based on the outcome of this study, a project is currently being performed that will use aluminum sulphate (alum) to deactivate phosphorus (P) in the lake's sediments. This project should reduce internal P cycling which was found to be 60% of the total P load to the water column.