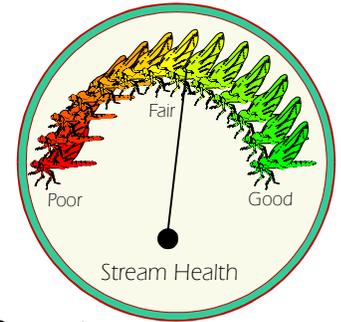




# EcoSummary

SCI Report



## Sanford Airport Ditch @ Pineway Road, Seminole County 25 August 1997

**Stream Condition Index (SCI):** The standardized biological assessment tool used by FDEP biologists to indicate ecosystem health and identify impairment as compared to reference (natural) conditions of streams within the various ecoregions of the State of Florida

### Purpose

As the major conduit of stormwater from the Sanford-Orlando Regional Airport, this waterbody has the potential to carry large amounts of nonpoint-source pollution downstream to Lake Jesup. This site was chosen for the dual purposes of



providing information to persons and agencies involved in restoration efforts being undertaken on Lake Jesup (spearheaded by St. Johns River Water

Management District) and for the continuing development of FDEP stream bioassessment methodology.

### Basin Characteristics

A number of interconnected roadside ditches which flow through the Sanford Orlando Regional Airport culminate in this man-made ditch, which flows south from the airport to empty into Lake Jesup at the mouth of Phelps Creek. The watershed also includes Golden Lake south of the airport, which has an outlet into the ditch system. Approximately 30% of the land use in the Airport Ditch/Phelps Creek watershed is commercial (airport), with an equal amount being residential. The remaining land use is roughly 20% each of undeveloped land and field or pasture. The sample site is in a low-density urban area near the north shore of the lake.

### Results

Twenty-two invertebrate taxa were collected in the sample taken here. Included in this number were four from the EPT group. A total of five Florida Index points was scored. The overall SCI assessment score was 21, giving Sanford Airport Ditch a "good" rating. The dominant species present in the sample was the riffle beetle *Microcyloepus pusillus*, which accounted for 38% of the individuals collected.

Despite the fact that its flow at this point is made up almost entirely of runoff from the vicinity of Sanford Orlando Regional Airport, water chemistry analyses suggested fairly good water quality in the Airport Ditch. Both nitrate/nitrite and total phosphorus values were low. All other water chemistry parameters showed low or average values compared with other Florida streams. However, the fecal coliform level in the stream (710 colonies/100mL) ranked in the 94th percentile. Although high, this was not in violation of current water quality standards.

Even though the water quality was reasonably good, the habitat quality was relatively poor. Due to low water velocity, a very reduced riparian zone buffer, and poor riparian vegetative community, the site received a score of 86 out of a possible 145 points, giving it a suboptimal rating.

### Significance

Even though there is potential for environmental problems in this watershed due to drainage from the airport, these results suggest a fairly stable ecological condition at this time. Hopefully, water quality will remain fairly good in this waterbody.



### Suggestions

Suggestions for maintenance or improvement in water quality in this area include the establishment of adequate stormwater retention systems as development in the area increases and the use of best management practices by area growers and ranchers.

For more information, contact Dana Denson, FDEP Central District, 3319 Maguire Blvd, Suite 232, Orlando, FL 32803 (407)893-3313 or SunCom 325-3313, e-mail: [denson\\_d@or11.dep.state.fl.us](mailto:denson_d@or11.dep.state.fl.us)