

The established hydrologic conditions for a same day dye release at both swallets required the Alapaha River at the Jennings gage (02317620) to be discharging between 500 and 1000 cubic feet per second (cfs) for the duration of the trace. Additionally, Dead River and Tiger Creek Swallets both needed to be flowing, and Alapaha and Holton Creek Rises discharging.

In October of 2015, dye introductions were postponed at the request of the District due to the potential for El Nino rainfall during the trace.

In June 2016, the District asked the FGS to release dye at the Dead River Swallet, Tiger Creek was not flowing. Tiger Creek began flowing in early August and the District requested the FGS release dye on August 11, 2016 and conduct limited sampling. US Geological Survey (USGS) stage and discharge information from June 9 to September 26, 2106 for selected sites in the study area are provided in Appendix I. Point discharge measurements obtained by the USGS during this period were not yet available on their website.

## **PURPOSE**

The study was performed to obtain hydrologic data to be incorporated into current groundwater modeling efforts that will support consumptive use permitting, water supply planning, and minimum flows and levels.

## **DYE TRACE**

In advance of the dye traces, the FGS contracted with Ozark Underground Laboratories, Inc. to provide dyes and analytical services. The FGS obtained the Scientific (Non-Commercial) Research/Collecting Permit No. 07191610 from the Florida Park Service, garnered site access to District lands, and from the private landowners for Tiger Creek Swallet, Coile Spring, and Stevenson Spring. The FGS also notified the appropriate local and State agencies/officials of the pending trace.

Prior to and after dye introduction, charcoal packets were secured to a locally collected limestone rock with coated wire and deployed at the sample sites (Figure 2).