

## **Rehydration of Wetlands in Brooker Creek Preserve**

This project was initiated to study the effects of augmentation and what benefits may be seen from rehydrating impacted wetlands.

The initial study by St. Leo College was impacted due to the delay in getting the WUP and constructing the wells and piping. Thus the study did not evaluate 5 years of augmentation. As a result, Utilities has entered into a 3-year contract with PEER to study the wildlife benefits from augmentation. The first year of the study was last year.

Given the climatic conditions for the last 2 years the augmentation was not needed. This spring has been dry and it is time to augment the wetlands in order to have any meaningful data. The permit allows for the augmentation of the wetlands during the entire year even during droughts. The permit only restricts augmentation after the high pool is met. The augmentation schedule is set up to mimic seasonal water level changes (lower in the dry season and increased water levels during the wet season). The research project needs to compare the augmented wetlands to the control wetlands.

The water use permit was issued by SWFWMD in April 2001 and expires in April 2011. The WUP authorizes the withdrawal of ground water to augment (hydrate) 3 wetlands on the N. end of the Preserve. The WUP quantities are 131,000 gpd avg. annual with a peak month of 199,000 gpd.

The water use permit review looked at impacts to other wetlands and legal existing users. The permit application meets all rule criteria and was issued as a result. Note: several studies by the USGS show that between 88-92% of the water pumped returns to the aquifer. "