

**STRUCTURE OPERATIONS**  
Southwest Florida Water Management District

Title:           **OPERATIONAL GUIDELINES  
FOR THE BROOKER CREEK SYSTEM:  
LAKE KEYSTONE, CRESCENT, AND ISLAND FORD  
WATER CONSERVATION STRUCTURES**

Bureau:           **OPERATIONS & LAND MANAGEMENT**

Number: TBAR-1

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**PURPOSE:** To provide guidelines for the operation of the water conservation structures for the Brooker Creek System including Lakes Keystone, Crescent, and Island Ford (structures) in Hillsborough County, Florida. This document serves as a general guideline for the routine operation of the structures and may be modified, as necessary, to ensure the environmental health, recreational and aesthetic value of the lakes, or in response to specific weather events or conditions.

### **General Statement of Intent**

During non-flooding conditions the structures will be operated within their Normal Operating Ranges (see Table 1). The operational goal is to allow each lake to fluctuate between its established Low Operating Level and Target Water Conservation Level without causing flooding or damages to lake front properties. The filling to their respective Normal Operating Levels will typically begin in June, with the goal of “topping off” each lake at its Target Water Conservation Level by the end of September to conserve water going into the dry season. Lake levels may increase above the Target Water Conservation Level and reach or exceed the High Operating Level for short durations in response to rainfall events; however, these higher levels will not be intentionally sustained.

### **Low Water Conditions – Water Levels Below Low Operating Level**

Low Water Conditions typically occur during the dry season (November through May). At the end of the rainy season (June through October) water levels will naturally decline over the dry season months. During Low Water Conditions, as a general guideline, the structures will remain closed.

### **Normal Operating Range – Water Levels Between Low Operating Level and Target Water Conservation Level**

The Normal Operating Range will typically occur during the rainy season. The structures will remain closed until each lake reaches its Normal Operating Level. The structures will be operated in coordination to maintain the respective Normal Operating Level in each lake through mid-September and allow excess water to be discharged downstream to Brooker Creek.

In mid-September when the probability of significant rainfall is reduced, the water level in each lake will be allowed to rise to the Target Water Conservation Level prior to entering the dry season.

If it becomes necessary to create flood storage in any of the lakes in anticipation of a high rainfall event such as a tropical storm or hurricane, the structures will be operated to lower water levels and increase available storage below each lake’s respective Target Water Conservation Level in advance of the event.

**High Water Conditions - Water Levels Greater than the Target Water Conservation Level**

The infrastructure around the three lakes can tolerate water levels up to the High Operating Level. As conditions allow during high water or flooding conditions the Island Ford structure will be operated to minimize the impact and duration of flooding conditions on Brooker Creek.

When releasing water from the Island Ford Structure the District will attempt to notify the Pinellas County Department of Environment and Infrastructure (727) 464-8760, as Brooker Creek conditions may be affected.

Flood levels are generally determined by the lowest permitted dwelling slab elevation adjacent to a lake. Outbuildings, docks, and non-living areas of dwellings could be subject to flooding under high water conditions.

**Table 1 – Normal Operating Ranges for Lakes Keystone, Crescent, and Island Ford**

Operating Level	Elevation (NGVD) <sup>1</sup>		
	Keystone	Crescent	Island Ford
High Operating Level	42.00 <sup>2</sup>	41.90 <sup>3</sup>	41.50 <sup>2</sup>
Target Water Conservation Level	41.75	42.00	41.00
Normal Operating Level	41.50	41.75	40.75
Low Operating Level	39.75 <sup>4</sup>	39.80 <sup>5</sup>	39.00 <sup>4</sup>

<sup>1</sup>NGVD = National Geodetic Vertical Datum of 1929

<sup>2</sup>Based on adopted High Level, previously referred to as the Minimum Flood Level

<sup>3</sup>Based on adopted High Guidance Level and consideration of the adopted High Minimum Lake Level

<sup>4</sup>Based on adopted Low Level, previously referred to as the Low Management Level

<sup>5</sup>Based on adopted Low Guidance Level and consideration of the adopted Minimum Lake Level

NOTE: Final Guidelines will be reprinted with NAVD88 Elevations when available.