

STRUCTURES G-402 A-D

The G-402 A-C structures are 54 inch diameter CMP culverts with slide gates, located on the eastern perimeter levee of the Rotenberger Wildlife Management Area (Rotenberger), immediately west of the Miami Canal (L-23). The G-402 D structure is a 42 inch diameter CMP culvert with slide gates also located on the eastern perimeter levee of Rotenberger, immediately west of the Miami Canal (L-23).

PURPOSE

These structures serve as the primary outflow control structures from the Rotenberger WMA to the Miami Canal.

OPERATION

As is the case for the G-410 inflow pump station, these structures are also operated in accordance with the Florida Department of Environmental Protection's Everglades Forever Act permit. In accordance with the permit, the G-402 structures will be operated, along with other Rotenberger hydropattern structures and components (G-410), to achieve an interim hydropattern restoration target based on a 31-year average interior stage as predicted by the Natural Systems Model. The permit recognizes that these interim operations shall generate data to be used by a team of individuals representing state and federal agencies to determine the long-term operational criterion that shall maximize environmental benefits for Rotenberger.

The interim schedule calls for G-402 gated structures to be opened during the wet season when interior stages within Rotenberger reach 12.3' NGVD and close when interior stages reach 12.05' NGVD. The dry season schedule calls for the gates to be closed from October 16 to May 14 each year. Additional operational guidance for the G-402 structures is based on best professional judgement of operating personnel, taking other factors, such as the Seminole water supply demand, into consideration.

FLOOD DISCHARGE CHARACTERISTICS

	Design
Discharge Rate	<u>60 cfs each</u>
Headwater Elevation (normal)	<u>12.03' NGVD</u>
Tailwater Elevation (Miami Canal, Mean)	<u>11.05' NGVD</u>
Type Discharge	<u>Controlled submerged</u>

DESCRIPTION OF STRUCTURE

Culverts

Size and Type: Three-54-inch diameter CMP culverts with hand crank slide gates

One-42 inch diameter CMP culvert with hand crank slide gate

Inverts: G-402A=7.13' NGVD, G-402B=7.23' NGVD, G-402C=7.57' NGVD and

G-402D=6.01' NGVD

Design Rating: 60 cfs each

Water level which will by-pass structure _____

Gates

Size and Type: G-402 A-C 6' High Light Duty, Bottom Opening Slide Gate

G-402 D, 5' High Light Duty, Bottom Opening Slide Gate

Remote Operation Capability: No

Date Acceptance into Service: October 2000

ACCESS: This structure is located on the eastern perimeter levee of Rotenberger. Access is from the Miami canal (L-23).

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Water Level: Remote digital upstream and downstream recorder

Gate Position Recorder: Remote digital recorder

DEWATERING FACILITIES (per gate) None

MONITORING: Flow compliance monitoring required by FDEP Permit Number 0131842 (EFA)