

## STRUCTURE G-335

G-335 serves as the outflow pumping station for STA-2. G-335 provides a nominal discharge capacity of 3,040 cfs. Hydrodynamic attenuation of flows through STA-2 results in a project outflow capacity of G-335 (3,040 cfs) less than the total project inflow capacity of 3,370 cfs (S-6 (2,925 cfs) + G-337 (445 cfs) = 3370 cfs). G-335 includes two 100 cfs pumps, two 470 cfs pumps and two 950 cfs pumps. All pumps are the vertical propeller type. The 100 cfs pumps are electric motor driven. The remaining pumps are driven by diesel engines. Water budget analysis performed for a 30-year period of record (1965-95) indicated that during only one event did the outflow capacity exceed the capacity of G-335 which might have resulted in the diversion of 835 acre-feet of water to WCA 2A (Brown and Caldwell, 1996). This diverted volume over a 30-year period is less than 0.02% of the total flows anticipated to pass through STA-2.

### LOCATION

G-335 is located at the extreme southeast corner of STA-2.

### PURPOSE

G-335 serves as the primary outflow pumping station for STA-2. In this capacity, it serves to move treated agricultural runoff which formerly was moved by S-6 pump station into WCA 1, into WCA 2 after removal of excess nutrients.

### OPERATION

Operation is based on the Operation Plan - Stormwater Treatment Area 2 by South Florida Water Management District Model 2001.

### DISCHARGE CHARACTERISTICS

Discharge Capacity (combined): 3,040 cfs

### DESCRIPTION OF STRUCTURE

Number of Pumps:	6
Discharge Capacity (combined):	3,040
Design Headwater elevation:	8.9 – 13.1 ft NGVD
Design low water (headwater) elevation:	7.5 ft NGVD
Design Tailwater elevation:	16.9 ft NGVD
Nominal pump operating speed:	
Electric: (pump #1 & #2)	440 rpm
Diesel 470-cfs: (pump #3 & #6)	722 rpm
Diesel 950-cfs: (pump #4 & #5)	722 rpm
Nominal "on" elevation:	9.5
Nominal "off" elevation:	7.5
Motor Speed:	
Electric:	440 rpm

Diesel:	720 rpm
Motor Size:	
2 100-cfs electric pumps:	200 hp
2 470-cfs diesel pumps:	1020 hp
2 950-cfs diesel pumps:	1535 hp
Centerline discharge connection:	
Electric:	21.25 ft NGVD
Diesel:	23.0 ft NGVD
Pump station floor elevation:	30 ft NGVD
Intake floor elevation:	
100 cfs electric:	-6.9 ft NGVD
470 cfs diesels:	-4.68 ft NGVD
950 cfs diesels:	-8.45 ft NGVD

**POWER SOURCE**

Prime Movers	Commercial electricity
--------------	------------------------

**STATION POWER**

Normal	Commercial electricity
Emergency	Diesel Generator

**HYDRAULIC AND HYDROLOGIC MEASUREMENTS**

Water Level: Telemetry available for headwater/tailwater and calculated flow.

Headwater/tailwater staff gauges are available for local monitoring.

Water Quality: Operation permit requires flow proportional. Composite sampling equipment for Total Phosphorus is present at this site. Regular grab samples are also collected.

**DATE OF ACCEPTANCE INTO SERVICE:** June 1999

**ACCESS:** This station is located 3 to 4 miles northeast of Pump Station S-7.