

STRUCTURE G-409

Pumping station G-409 is located in Hendry County immediately south of STA-6 in the L-3 borrow canal at the point commonly referred to as "Confusion Corner."

PURPOSE

The objective of G-409 is to supply irrigation water to the Big Cypress Seminole Indian Reservation from the Miami Canal via G-404 pump station and the L-4 borrow canal (or the L-3 extension canal), west over the L-28 borrow canal to an agricultural ditch. **Improvements are planned for this ditch. Construction is planned for spring 2002.**

OPERATION

The station has three (3) 30-inch diameter vertical axial flow pumps with diesel engines and each pump has a discharge capacity of 63.3 cfs at a total static head of 8.3 ft. The total discharge capacity of G-409 is 190 cfs. The hydraulic design was based on the analysis prepared by Burns & McDonnell dated October 13, 1997. The factory test report, including performance curves, for these pumps are contained in the project files. The station includes reinforced concrete intake with trash racks, and a pre-engineered metal building to house the engines and instrumentation.

DISCHARGE CHARACTERISTICS

Discharge capacity (each pump):

Start-up: 56.6 cfs at a total developed head of 16.64 ft, and a static head of 8.3 ft (HW=10.2 ft; pipe crest elevation 18.5 ft)

Normal: 64.6 cfs at 0 ft static head (HW=11.5 ft; TW=10.0 ft)

Siphon-assisted: 63.3 cfs at 1.8 ft static head (HW=10.2 ft; TW=12.0 ft)

DESCRIPTION OF STRUCTURE

Number of pumps:	Three (3)
Design headwater elevation (estimated):	11.7 ft
Design low water shut off elevation:	10.2 ft
Design maximum tailwater elevation:	12.0 ft
Design head loss across trash rack:	1.5 ft
Nominal pump operating speed:	515 rpm

Normal "on elevation": Subject to request by Big Cypress Seminole Indian Reservation and L-3 borrow canal conditions

Normal "off elevation": Subject to request by Big Cypress Seminole Indian Reservation and L-3 borrow canal conditions

Motor size:	150 Hp
Motor speed:	1800 rpm
Centerline discharge connection:	14.25 ft
Pump station floor elevation:	20.0 ft
Intake floor elevation:	0.0 ft
Discharge bay floor elevation:	6.0 ft

POWER SOURCE

STATION POWER **Diesel**

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Staff gauges: Stage recorders at upstream and downstream of structure

Telemetry system: Three diesel pumps on telemetry control, pumps monitored for rpm

ACCESS: From Broward and Palm Beach County line, take L-5 Levee West 15 miles to G-404. From G-404 take North levee of L-4 West 7 miles to G-409.