

Draft

**Pump Station S-534  
Summary of Hydraulic Design Data**

Revisions:

- 26 January 2001 – Original Submission

XY Coordinate<sup>1</sup> – 879610 833540

Location: Southwest corner of Acme B STA, junction of the STA, WCA-1 and STA 1-E.

Purpose/Operational Intent: Flood Control

- Pumps marsh-ready treated water from Acme B STA into WCA-1 (Loxahatchee).

Design Condition: Flood Control 150 cfs

Pump Station Capacity Criteria:

- 150 cfs meets Acme B STA's portion of the currently permitted 500 cfs untreated runoff that is discharged into WCA-1.
- 150 cfs matches inflow pump station S-533 capacity minus seepage control.

Number of Pumps 2

Pump Mix Type and Size

Electric

2 @ 75 cfs

Mix Criteria:

- The pump station will have two identical 75-cfs electric pumps in 2 bays.
- The pump mix allows for intermediate flow values.

Control

Local & Remote by SCADA

Design Heads

Normal (13.5 HW to 16.0 TW)

2.5 feet

Maximum (11.0 HW to 18.0 TW)

7.0 feet

Intake Water Surface Elevations

Maximum Non-Pumping

18.00 ft-NGVD

Maximum Pumping

18.00 ft-NGVD

Start Pumping

14.50 ft-NGVD

Normal Drawdown

12.5-13.5 ft-NGVD

Minimum Drawdown Pumping

11.00 ft-NGVD

Minimum Non-Pumping

11.00 ft-NGVD

Channel Invert

5.00 ft-NGVD

Discharge Water Surface Elevations

Maximum Non-Pumping

18.20 ft-NGVD

Maximum Pumping

18.00 ft-NGVD

Normal Pumping

16.00 ft-NGVD

Minimum Pumping

10.00 ft-NGVD

Minimum Non-Pumping

10.00 ft-NGVD

Channel Invert

5.00 ft-NGVD

Notes:

- <sup>1</sup> XY coordinates system used is NAD 83, Florida east, state plane.
- All elevations are in feet, NGVD (National Geodetic Vertical Datum of 1929)
- Diesel generator is required for control station and electric pumps in case of power outage.

Data Compiled from:

- 1-8C max/min record
- LIDAR data
- Selected Plan Features