

Draft

Pump Station S-525B
Summary of Hydraulic Design Data

Revisions:

- 30 November 2000 – Finalized prior to SFWMD concurrence
- 2 November 2000 – Original submission

XY Coordinate¹ – 894020 733125

Location: Hillsboro Impoundment southern compartment on the L-36 Borrow Canal

Purpose/Operational Intent: Water Supply Deliveries and Flood Control

- Pumps 500 cfs runoff from North Springs Improvement District into the Hillsboro southern compartment via the L-36 Borrow Canal, eliminating current permitted discharges into the Conservation Area.

Design Condition: Flood Control 500 cfs
Seepage Control Required

Pump Station Capacity Criteria:

- Pump capacity 500 cfs is equivalent to current permitted discharge by North Springs Improvement District into WCA-2A. A 50 cfs electric pump is provided to capture excess seepage from WCA-2B.

Number of Pumps 4

Pump Mix Type and Size

Diesel 1 @ 250 cfs
Diesel 2 @ 125 cfs
Electric 1 @ 50 cfs

Mix Criteria:

- The pump station will be 4 bays with 1 set of matching pumps.
- The pump mix allows for intermediate flow values while having duplicate pumps throughout the system.

Control Remote by SCADA or Local

Design Heads

Normal (7.00 HW to 16.00 TW) 9.00 feet
Maximum (5.50 HW to 16.00 TW) 10.50 feet

Intake Water Surface Elevations

Maximum Non-Pumping 11.00 ft-NGVD
Maximum Pumping 11.00 ft-NGVD
Start Pumping 7.30 ft-NGVD
Normal Drawdown 6.0 to 7.5 ft-NGVD
Minimum Drawdown 5.50 ft-NGVD
Minimum Non-Pumping 5.50 ft-NGVD
Channel Invert -1.00 ft-NGVD

Discharge Water Surface Elevations

Maximum Non-Pumping 19.00 ft-NGVD
Maximum Pumping 16.00 ft-NGVD
Normal Pumping 16.00 ft-NGVD
Minimum Pumping 6.50 ft-NGVD
Minimum Non-Pumping 6.50 ft-NGVD
Channel Invert 4.00 ft-NGVD

Notes:

- ¹ 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 cases of power outage.

Data Compiled from:

S-39 TW records

L-36 As-Builts (DO 414-19-806, pg 5 of 6)

WPA Alternative hydrograph evaluations.