

Flow and Water Quality Monitoring at the S10A, S10C, S10D and S39 Structures

● Structure Information

S10A, C & D - gated spillways, 4 gates for each structure
- manually operated by USACE

S39 - reinforced concrete spillway with 1 gate
- manually or remotely controlled gate
- diesel emergency power generator added on May 2002
- operated by SFWMD

● Purpose of Structures

Structures 10A, C & D
- principal discharge from LNWR
- principal source of gravity flow into WCA-2

S39 - principal release from LNWR
- provides supply water needs to Hillsboro canal on dry season
- discharge excess water from LNWR into WCA-2 and WCA-3

● Instrumentation at Structures

- S10A, S10C, S10D – CR10 (solar panel)
- Head and tail water level data are collected and transmitted via satellite to COE.

USGS installed instrumentation and provides maintenance.

S 39 - remote digital head and tail water level recorders
- gate opening – remote digital recorder

(continued on other side)

- **Data Collection for Flow Monitoring**

S10A based on manual gate opening

Head and tail water (CR-10 real-time break point data collection and satellite transmission)

S10C based on manual gate opening

Head and tail water (CR-10 real-time break point data collection and satellite transmission)

S10D based on manual gate opening

Head and tail water (CR-10 real-time break point data collection and satellite transmission)

S39 Head, tail water and gate opening done via telemetry

- **Water Quality Sampling**

S10A and S10C - sampled bi-weekly when flowing

- no flow – no sample

S10D and S39 - sampled bi-weekly when flowing

- sampled once a month if not flowing

- **Flow Data**

S10A uses S10A_H, S10A_T and gate opening (flow computed by COE)

S10C uses S10C_H, S10C_T, gate opening (flow computed by COE)

S10D uses S10D_H, S10D_T, gate opening (flow computed by COE)

S39 flow computed by SFWMD (S39_H, S39_T and gate opening)